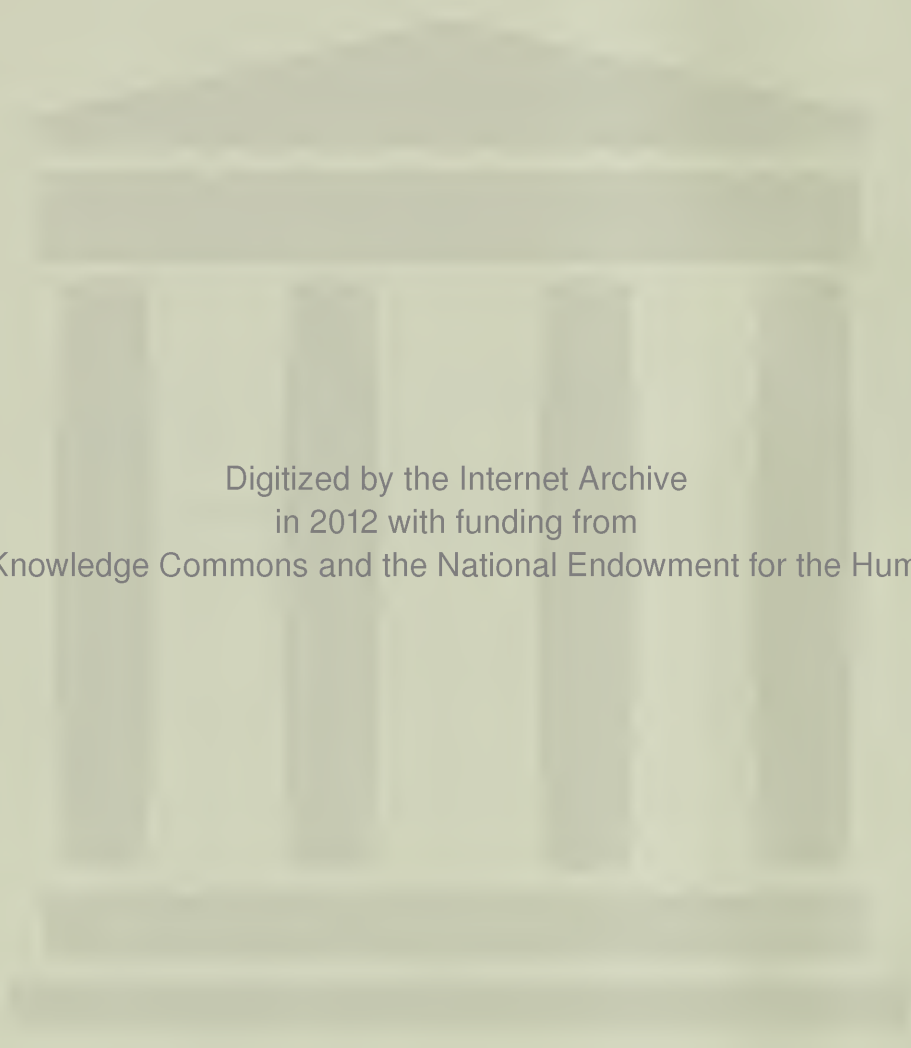


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THE AMERICAN MEDICAL MONTHLY.

JANUARY, 1859.

ESSAYS, MONOGRAPHS, AND CASES.

Importance of the Study of Legal Medicine. A Lecture, introductory to the Course on Medical Jurisprudence at the New York Medical College. By JAMES WYNNE, M.D.

The facts to which I shall invite your attention in the course of lectures it becomes my province to pronounce to you, possess an importance that cannot well be over-estimated, and demand at your hands the most careful and rigid investigation. Indeed it is quite possible that your character as medical men may be fixed, in the community in which you may take up your residence, by the extent of information you may possess in the first medico-legal case to which you are called, and in the absence of regularly established officers for this purpose, this may occur immediately upon your entrance into your professional career. "The duties of the physician or surgeon," remarks Beck, "are not bounded by his responsible and interesting attendance on the sick. He is often called upon to exercise other functions. His opinion is desired in cases of sudden death, of grievous bodily or mental injury, or on the nature of particular diseases and affections. This, indeed, is the natural result of a proper regard for the interests of society. Whenever the importance of equal laws becomes fully recognized in a country, and the necessity of distributing

impartial justice fully understood, it will soon suggest itself to the legislator that if evidence is required, it should be of the most unexceptionable and satisfactory character. When the controversy originated in mercantile disputes, the opinions of merchants were of course sought for, and depended on, and their customs and usages have indeed become a part of the statutes of various countries. So also when unexpected death followed from known or supposed injury, when the suspicion of violence entered into the list of causes, it was natural that sooner or later those should be called upon to testify, whose ordinary studies and pursuits best enabled them to decide.* Such a conclusion appears to flow inevitably from the very principles upon which law is based. In this great and comprehensive department of human knowledge, man is regarded, not with a view to these physical characteristics, which it is the province of medicine to contemplate, but for the purpose of determining those moral tendencies that effect him in his relations to society, and hence he is considered not so much in his individual as his social capacity, and as constituting one of a community to which he is under certain obligations, and from which he derives corresponding advantages. Now, one of the chief objects of legal medicine is to aid the law so far as medicine and its collateral branches are concerned, in determining, whenever a violation of these obligations are suspected, the extent of the culpability of the individual, by a development of such circumstances as medicine alone is competent to unravel. Thus, when an offence involving a medico-legal question has been committed, the mere matter of fact may be as correctly stated by any intelligent observer as a medical man; but the many questions apparently trivial to others, which are nevertheless of great importance in the investigation of the case, together with the inferences to be deduced from them, peculiarly belong to the province of the medical jurist, whose previous studies and preparation of mind enables him to bestow upon them their just value, and bearing upon the case under investigation. "He is supposed, and rightly and justly supposed," observes Dr. Forbes Winslow, in reply to some strictures made by Mr. Warren, the eminent barrister, and author of the *Diary of a Physician*, in his review of Townsend's *Modern State Trials*, in Blackwood, in 1851, upon the value of medical testimony, as developed in the case of MacNaughton—"by education, study, reflection and enlarged experience, to be capable of enlightening the court and the jury upon matters upon which they are necessarily but

* Beck's Medical Jurisprudence, vol. 2, p. 895.

superficially acquainted, and he is subpoenaed to give the benefit of his scientific knowledge in cases involving the questions of LIFE and DEATH.”* This position, assumed by Dr. Winslow for medical witnesses and medical experience, has usually been accorded to them by the most learned judges; thus, when a medical man at Lincoln flipantly replied to a question, by slighting the information obtained from medical writers, saying that the writers of books would advance anything, Chief Justice Dallas, with great propriety, severely reprimanded the witness, and declared that he would not sit in a court of justice and hear science reviled and the recorded researches of the medical world represented by ignorant tongues as leading to uncertainty.†

A surgeon is called to attend a person who has received a grievous wound; his chief business in this capacity is to ascertain the nature of the wound, so far as it offers hopes of remedial aid, and to apply such means as will most effectually secure a favorable termination; but in his capacity as a medical jurist, he will consider the circumstances and direction of the wound as affording a clue to the manner in which it was inflicted. Thus Fodère and Orfila have laid down the opinion, that where incised wounds are self-inflicted their direction is generally from left to right, either in a straight line, or obliquely from above downwards; and in the event of stabs and punctured wounds, from right to left, and from above downwards. In the case of left-handed persons these positions will be reversed. It often occurs that the circumstances exhibited by the wound are such as to leave great doubt as to the mode in which it was inflicted. Poilroux mentions the case of a laborer, who, when last seen alive, was conducting an ass loaded with wheat, near Castellana, in France; he was found dead at the foot of a precipice, beside the main road. The ass, who had fallen, was still living. The body of the man presented a number of irregular wounds and contusions, and a fracture of the under jaw and clavicle.

The general conclusion was, that the ass had stumbled over the rocks, and that the driver had lost his balance in attempting to recover him, and thus both fell over the precipice together. But a bonnet was discovered at the place of the accident, which did not belong to deceased, which led to a still further investigation, which resulted in the discovery of three or four incised wounds on the back of the head and neck, perfectly regular in shape, and evidently made by a sharp cutting instrument. Other wounds of the same description were found on the

* Winslow's Psychological Journal, vol. 4, p. 574.

† London Medical and Surgical Journal, vol. 6, p. 421.

chest, but the hands and arms were uninjured, except a slight excoriation on the finger. The inference was conclusive, that he had been murdered before falling over the rocks. It was now remembered that a neighbor, of violent and revengeful temper, was on bad terms with the murdered man. These circumstances led to his arrest; he was tried, found guilty, and executed.*

In the case of Donnelly, who was tried and executed for the murder of Moses, the question of suicide was raised, and rejected on account of the severity of the wound, which produced death by bleeding from the deep thyroid artery. Dr. Finnell in July last exhibited to the members of Pathological Society the cervical vertebra of a man who had come to his death in a precisely similar manner to Moses, but, as was alleged, by suicide. He was an intemperate man, and while laboring under delirium tremens is supposed to have arisen at night and plunged a shoemaker's knife into his throat with such violence that it was found impacted in the vertebra, and then returned to bed; in this state he was found in the morning by his wife, who was sleeping by his side. I have not sufficient evidence before me to determine whether the deceased died of a self-inflicted wound or otherwise.†

In medico-legal investigations too much caution cannot be observed, as illustrated by the following case: Mr. Prelet, who resided at Chambéry, died suddenly on the night of the 13th of January, 1842, after having supped with his nephew. He was buried on the 16th. Two days after the civil authorities received an anonymous note, declaring that Prelet had been poisoned by his nephew with prussic acid. On the receipt of this note, the authorities caused his body to be exhumed and subjected to an examination, with the view to ascertain the truth or falsity of this charge. The two medical men who were selected to conduct this examination, declared that they had discovered the prussic acid, which had been given to him in wine. Upon this testimony the nephew was condemned, but the defence obtained a stay of judgment in order to invoke the aid of the celebrated Orfila. This learned toxicologist, after a full investigation, decided that the patient had died of unequivocal symptoms of apoplexy, and that the medical men who had made the first examination were in fault in sup-

* Poilroux Med. Legale Criminelle, p. 97.

† Had this case been on record at the time of Donnelly's trial, it would have furnished his counsel with a formidable argument to sustain the theory of the suicide of the deceased. In the Burdel murder suit, the character of the wounds, as developed by the testimony of Prof. Carnochan, Dr. Francis, and others, doubtless exercised a material influence over the minds of the jury.

† American Med. Monthly, vol. 10, p. 62.

posing that they had detected prussic acid in the parts of the body subjected by them to chemical analysis. The nephew was accordingly acquitted.* Mistakes in cases of poison are of frequent occurrence, owing to the great skill often required to detect them; and no one who has not a thorough acquaintance with the different tests, should give an opinion involving the life of a fellow-being, without obtaining such aid as to remove as far as possible the doubt which too frequently envelopes the case.

Different codes for the conduct of medico-legal investigations exist in different countries. Among the most celebrated of these is the criminal code formed by the Emperor, Charles V., at Ratisbon, in 1532, which was speedily followed by the adoption of similar ones in France and other European countries. The Prussian code requires the States Physician to make post-mortem examinations, and institute such medico-legal investigations relative to lesions and injuries to living persons, or affections of mind and body of those presented to his consideration, as the nature of the case may warrant.† In order to fit those who are hereafter to assume these duties, a school of medical jurisprudence is established, in connection with the University of Berlin, over which Dr. Wagner presides, and in which Dr. Casper, the eminent statistician and writer on forensic medicine, is a professor. The care taken to exercise the pupils in the practical branches of their art is evidenced by the great number of cases of post-mortem and other examinations recorded in Dr. Casper's work, over which he exercised a personal supervision.

"A supreme medical and sanitary council or college exists in the capital of each kingdom or state, forming part of the ministry for the interior, and is presided over by the Minister of Public Instruction. The central council at the seat of government superintends all medical affairs, and has the supervision of all the provincial and district medical colleges or sanitary boards. To take an example: the supreme Medical Board of Berlin consists of certain members, appointed for three years, and eligible for re-appointment. Of these, the majority are medical men; the following nine well-known names being those of the medical members of the supreme college of medical and sanitary affairs in Berlin: Klug, Köner, Horn, Link, Kluge, Wagner, Mitscherlick, Casper and Froriep."‡ The most active agent of these

* *Annales d'Hygiène et Méd. Lég.*, vol. 26, p. 397; vol. 29, p. 103.

† *London Medical Gazette*, vol. 13, p. 952.

‡ *British and Foreign Medico-Chirurgical Review*, vol. 18, p. 367.

councils is the *stadt-physicus*, or state physician, to a portion of whose duties allusion has already been made. He is, in fact, the special agent to whom is confided the investigation of all medico-legal questions, and is always liable to the call of the legal tribunal having cognizance over these subjects.

Should the case involve any complications, or be shadowed with doubt, the report of the examining physician, together with all other depositions, is forwarded to the Provincial Council, which, if unable to solve the question, refers it to the still higher authority of the Supreme Council at Berlin.

"The forensic duties of the *physicus* are under the direction of the supreme judicial courts and of the police authorities of the district, or a local magistrate. With the assistant forensic surgeon, the *physicus*, in the event of a sudden or violent death, is required to repair, without loss of time, to the spot where the body is to be examined. The judicial inspection is required to be made according to special instructions issued to that end. In cases of poisoning or adulteration of food, the *physicus* shall very carefully and scrupulously investigate the case, with the assistance of a qualified apothecary; a conjoint report shall be signed by these three officers, viz., the *physicus*, the surgeon and apothecary; not only [to verify the truth thereof, but also to divide the responsibility of the consequences that may thence follow."*

In Austria "a code of regulations is published, by which all medico-judiciary investigations are to be conducted throughout the empire, and reports to be drawn up. Public inspections are also made on the dead bodies of those found in suspicious circumstances, and which, not being recognized at first, are carried to the dead-room in the general hospital. Due notice is given to the students at what hour such inspections are to take place, and they have thus an opportunity of seeing those regulations put into practice, which they will one day be called to fulfill."†

The Criminal Code of France (Art. 44) provides, that in case of a violent death, or of one to the cause of which suspicion may attach, the Procurer shall call to his aid one or two *officiers de santé*, who shall make to him a report on the condition of the body and the cause of death.

The Police Ordinance of 1822 provides, that whenever a person

* British and Foreign Medico-Chirurgical Review, vol. 18, p. 370.

† Quarterly Journal of Foreign Medicine and Surgery, vol. 1, p. 40.

shall be found wounded in the public highway; or in the water in a state of suffocation; or asphyxed from the effect of mephetic gases, he shall be transported to the nearest hospital or place convenient, and a skillful person employed to attempt his resuscitation, or make an examination and report of the circumstances of the case if death prove inevitable. The *officier de santé* here alluded to corresponds to the apothecary in England, and occupies a position inferior to that of the medical man in Europe, or the better class of the profession in this country.

It becomes the duty of the authorities to procure "*experts*" in many cases. These are not a distinct class of practitioners, but are generally selected from those who have bestowed particular care and attention upon questions of this nature. The opinion of an expert may be demanded either by the judge or the accused, before the passage of judgment, not unfrequently as in the case of Prelet, already cited, with the effect of reversing the sentence of the court. "The experts thus called into consultation do not necessarily reside in the locality where the alleged crime was committed, but may, if advisable or necessary, be summoned from a distance. Or it may happen in more grave cases, such as poisoning, assassination, &c., that there may be a difference of opinion among the experts who have investigated the affair upon the spot. Under these circumstances the magistrate addresses to the local *juge d'instruction* a *commission rogatoire*, by which he is authorized to require the opinion of certain "*experts*," the choice of the latter being frequently left to his discretion. The limits of the "consultation" are much less restricted than are those of the "reports," which consist simply of a statement of the facts and the conclusions. In the consultation, every fact must be discussed and fully commented upon, the commentary being strengthened by all suitable arguments, and illustrated by reference to the statements and opinions of authors. The names of the previous reporters are in all cases concealed from the consulting experts, lest the authority or the insignificance of a name should exert its undue influence upon their judgments."*

These reports constitute the ground of action, determining the abandonment or the continuance of the case; and in the latter instance assume the position of witness, usually with the effect of determining the issue of the cause.

The Sardinian Sanitary Board forms a part of the machinery of the

* British and Foreign Medico-Chirurgical Review, vol. 18. p. 377.

government, and consists of a Supreme Council of Health, and a Provincial Council for each town or district. The Supreme Council is composed of regular and honorary members, and is presided over by the Minister of the Interior. The Advocate Fiscal General, corresponding to our District Attorney, is likewise a member of this board. The whole board is composed of fifteen members, embracing some of the most eminent medical men in Turin, among whom are Ribeny, physician to the king, Maffene, Giraldo, Sperino, and Abbene. Each Provincial Council consists of one physician, one surgeon, and one pharmacist. The municipal authorities appoint a medical man, who visits every deceased person, and from personal inspection ascertains the cause of death. If it be from ordinary disease, he gives a certificate, without which no burial can take place. If the case involves suspicion, he reports the facts to the local Advocate Fiscal, and if needs be the Provincial Council is called upon to investigate the matter. In cases of doubt the act of the Provincial Council, as well as the whole subject, is referred to the Supreme Council at Turin, who appoint a commission of experts to investigate carefully the whole matter. The caution with which these investigations are made acts as a salutary restraint in the prevention of crime involving the destruction of human life.

In England and in the United States these important duties, which involve so complex a machinery, and are prosecuted with such care and ability in most European States, are placed in charge of a coroner; who possesses the power to summon a jury and compel the attendance of witnesses. That this office is frequently confided to incompetent hands, in both countries, does not admit of doubt. "It would seem indispensable," remarks Beck, "that he (the coroner) be properly versed both in legal and medical knowledge, required from time to time in the discharge of his office. It cannot be denied that a full and satisfactory medico-legal examination is avoided as often as public sentiment will permit, and, even when judicially ordered, its proper objects are often thwarted or not fully accomplished. The consequences may be seen in the results of many of our criminal trials. The public mind may be deeply and permanently impressed with the guilt of individuals, yet the imperfection of the early examination has been such as to leave no option with the jury, but to release the accused."*

A report from the Select Committee of the House of Commons,

* Beck's Med. Jurisprudence, vol. 2, p. 897.

recommending the appointment of public prosecutors, whose functions should be somewhat analogous to those of District Attorneys in this country, was made in 1856, which it was supposed would cover this ground. The testimony elicited before the committee showed many evils in the present system. Lord Brougham declared it ineffectual in its provision for the prosecution of offenders, and stated that a wealthy person may not only tamper with the prosecutor, but buy off the prosecution. The committee derived their chief information from persons familiar with the jurisprudence of Scotland, Ireland and the United States, in the latter of which they obtained valuable aid from Judge Davies, the present distinguished Justice of the Superior Court, at that time on a visit to Europe. The testimony of Mr. Davies showed that each of the 56 counties in this state has a special public prosecutor, called District Attorney, who is amenable to the Attorney General of the State. Yet the recent trials for capital offences, and the large number of flagrant crimes which have gone unpunished of late years, show how ineffectual this system is for the detection of crime and the preservation of order. So far as the recommendations of the committee go, they do not contemplate that incipient mode of detecting crime, which it is the peculiar province of the laws of Continental States to develope, and upon which the future conduct of the case generally depends.

Surgeon Craig, in a pamphlet on the Law of the Coroner, and on medical evidence in the preliminary investigation in criminal cases in Scotland, published in 1855, shows that the office of the Procurator Fiscal has no more influence over these important preliminary investigations, than that of the District Attorney in this country, but that the case is left to an ignorant constable to conduct.

"In all cases of sudden death," he says, "the district constable repairs to the place where it has occurred, collects information, and sends off a report immediately to the superintendent; and in cases of rape, child-murder, or concealment of pregnancy, the *constable* is to ascertain, with precision, all appearances exhibited, such as marks of feet, blood, &c. &c. If there be any circumstance calculated to raise ground of suspicion as to the death, such as external marks of violence, bruises, fractures, &c., the constable is to apply to the nearest medical man, without delay, and after examination is to obtain a certificate and forward it immediately to the superintendent. In all cases of serious assault, the constable, without delay, procures the assistance of the nearest medical man, and sends off a report, as above described, and instructions are given as to what circumstances the medical man is to certify.

“Upon receiving such a report, it is laid by the superintendent before the procurator fiscal of the county, who either acts upon his own responsibility, or occasionally takes a fresh precognition, and prepares a case to submit to the crown agent, to whom the police reports are frequently sent, and whose instructions are thereafter acted upon.”

It is earnestly to be hoped that the day is not far distant when both England and the United States, profiting by the enlightened example of France, Austria, Prussia, and Sardinia, will so amend their codes of Criminal Jurisprudence as to place these important preliminary investigations in the hands of competent and able officials, whose high character will be a guarantee for the faithful performance of their responsible duties, and that men equally skilled in medico-legal researches with MM. Gaultier de Claubry, Chevallier, Tardieu, Orfila, Wagner, and Casper, may be selected to act as experts.

As the law now stands, the coroner may summon any medical man to appear before him and give evidence as to the cause of a sudden death. It may chance that a medical man may pass through life without being so summoned, but it will not do to rest upon so vague a probability, and remain unprepared for an emergency which is possible to arise at any instant, and may place the practitioner, if unprepared, in the most unpleasant position.

In a preliminary examination before a coroner, in the case of a sudden and unexplained death, the medical witness will find that an accurate knowledge of anatomy is absolutely necessary to guide him in his investigations. This examination should be thorough, and no desire to avoid labor, or discouragement from the coroner or his jury, should prevent the medical man from prosecuting his investigations to a sufficient extent to enable him to speak positively as to the nature of the lesions he chances to discover. This is often a tedious business, especially to the coroner and his jury, who look upon the examination in too many cases as a mere matter of form, and are anxious to hurry through it and return to their usual avocations.

The necessity of a post-mortem examination is illustrated by the following case:

“Three men were tried on a charge of manslaughter. The prisoners and the deceased had been drinking together at a public house, when a quarrel arose, which ended in a battle between the deceased and one of the prisoners. The other two acted as seconds. The fight had continued for some time, when the deceased was knocked down by a severe blow on the head, and did not afterwards speak. A surgeon was sent for, but before his arrival the deceased had ex-

pired. On this trial the witness stated that he found a considerable bruise behind the ear, in the region of the mastoid process, accompanied by extravasation of blood. On being cross-examined, he admitted that he did not open the cranium, the coroner having told him that it was unnecessary. He ascribed the death of the deceased to a pressure of blood upon the brain, which, in his opinion, might have become extravasated by a blow or fall, or from extraordinary excitement. The deceased was of an apoplectic diathesis. The learned judge observed to the jury, in summing up, that the medical evidence was not sufficient to determine whether the deceased had died from the violence employed by the prisoners or from after causes. An acquittal instantly followed.*

"We cannot," (remarks the *Edinburg Med. & Surg. Journal*, vol. 14, p. 468,) "omit this opportunity of expressing our disapprobation of the conduct of coroners, who presume to interrupt the medical practitioner, called upon to examine the cause of death under suspicious circumstances; and of informing practitioners in general that as soon as the body is delivered over to them for that purpose, they are to proceed deliberately with their examination until they are satisfied. Upon this subject we quote with great satisfaction the opinion of the enlightened judge who now presides over the criminal courts of this division of the empire. Dr. Cleghorn, of Glasgow, having been examined on a trial for poison, the Lord Justice Clerk, after highly complimenting the learned professor on his luminous evidence, took occasion to impress strongly on all magistrates and the public officers present the absolute necessity of having the body of the deceased opened and examined by a medical man, in every case of suspicious death."

You cannot be too strongly imbued with the importance of a thorough acquaintance with that part of chemistry which is brought into play in toxicological examinations. The tests in cases of poisoning should be as familiar to you as the antidotes necessary to counteract the influence of poisons in the living subject. The opportunities that will be given to you to become thoroughly acquainted with this subject, by the able lecturer who fills the chair of chemistry in this institution, are such as are seldom met with in this country, and should not be neglected. The celebrated Dr. John Hunter, whose case is quoted by Sir Astley Cooper and Beck, as a lesson to all medical men, "regretted that he had not made more experiments on the subject of poisons, before giving an opinion in a court of justice."

* Taylor's Jurisprudence, p. 265.

In this class of cases it is always important to obtain the opinion of experts, whose studies and facilities for analyses give great and deserved weight to their opinions. The science of analytical chemistry is here of chief importance, and such men as Booth, of Philadelphia, Piggott, of Baltimore, J. Lawrence Smith, of Louisville, Blaney, of Chicago, and Campbell, Morfit, and Doremus, of this city, whose lives are devoted to this pursuit, and in which they have obtained deserved reputation, cannot be too widely known.

At the moment of making the examination, and for some time afterwards, the facts connected with the case are so vividly impressed upon the mind of the medical witness that he fancies there is no possible danger of their ever becoming less distinct. This may continue for some weeks, but it not unfrequently happens that months may transpire before he is called upon to give evidence in a court of justice. During this time other matters may have intervened to call off his attention, and when he comes to review the case in his own mind at, or immediately before, taking his place at the witness stand, he finds that his memory furnishes him with a confused and indistinct picture of things which he supposed were firmly fixed in his mind. He therefore speaks with doubt and hesitancy of the facts which are most important to the case, and under a thorough cross-examination by an astute advocate is often shown to possess too faint a knowledge of the facts to give to his testimony the weight it merits, or to bestow on himself that standing in the opinion of the court and spectators which as a scientific man he feels that he is entitled to. No one should, therefore, trust in an important case exclusively to his own memory, but take notes at the moment, which are admissible as evidence, so far as they are used merely as a means of assisting the memory, and not as a basis for the evidence given. In order to render these notes of any value, they must be taken at the time of the occurrence of the facts, and not afterwards. "On the trial of Sir A. Gordon Kinlock for the murder of his brother, the medical witness was about to give his evidence respecting the wound of which the deceased had died, from notes made some time after the event, when he was stopped by the Lord Advocate, who explained to him the law on the subject."*

In the narrative of facts the simplest and most concise language should be used, and great caution observed not to express opinions which cannot be sustained. Indeed all opinions not suggested by the facts are not only out of place, but worse than useless. A medical witness who is pressed for an answer in regard to an opinion upon

* Taylor's Medical Jurisprudence, p. 15.

which he is not positively sure, need not fear to lose cast by hesitating to reply until he shall have had time to examine the whole bearings of his answer, and to be fully assured of the certainty of its correctness. During the examination of Dr. Delafield before the Surrogate in the Parish will case, that eminent medical man did not hesitate to inform the court that the question propounded to him by the counsel was one that required time for consideration before a reply could be given. This time was awarded.

The testimony of medical men, in cases of real or supposed insanity, is often required, and frequently under circumstances calculated to place the witness in the most awkward position, unless he shall have previously fortified himself by a thorough foundation laid in a study of the psychological phenomena of insanity beforehand. It is not always easy to say what is or is not insanity. Let me present you a portrait drawn by Knaggs, in his work on unsoundness of mind:

“There was an old man well known in London during the last century, who was of an ungainly appearance, and subject to occasional attacks of hereditary melancholy; so inconsistent was he in his habits, that sometimes he practiced great abstemiousness, and at other times devoured large meals with brutish slovenliness and voracity; sometimes he would persist in drinking nothing but water, but occasionally drank wine by tumblersfull; his income was far from large, and not of a certain amount, yet he kept a set of old men and women about his house, whose bickerings and disagreements now and then drove him out of doors; he was in general very loquacious, but has been known to sit in company and drink a dozen cups of tea without speaking a syllable; when not engaged in discoursing, it was his custom to keep muttering to himself; in walking he performed strange gesticulations, and would not go in at a door unless he could effect his entry in a certain preconceived number of steps, and so as to introduce himself on a particular foot—turning back and recommencing until he succeeded as he desired; there was a row of posts near his house, which he would not pass without touching singly, and if he omitted one in the series he retraced his steps to remedy the neglect; he hoarded up orange skins for some mysterious purpose he would never divulge; he suffered remorse of conscience for having taken milk in his coffee on Good Friday; he believed in ghosts, and went ghost hunting in Cock Lane; and maintained that he heard his mother calling for him by name in the other world. Yet Dr. Johnson was so far from insane, that by common consent he was regarded as the most vigorous thinker and greatest sage of his time.”*

* *Unsoundness of Mind*, by Knaggs, p. 46.

The occasions when medical evidence is required in courts of law, in reference to insanity, are thus laid down by Dr. Forbes Winslow, in his Lettsomian Lectures delivered before the Medical Society of London, in April, 1852:

“ 1st. Cases in which the plea of insanity is urged in the extenuation of crime.

“ 2d. Cases where attempts are made to invalidate the legal operations of testamentary dispositions of property on the ground of mental incompetence.

“ 3d. When legal proceedings are instituted to invalidate a marriage contract on the plea of insanity and imbecility.

“ 4th. In commissions *de lunatico inquirendo*.

“ 5th. Cases in which medical men are called upon to certify to the existence of insanity, justifying an interference with the person of the lunatic.”

Each of these subjects will be considered in subsequent lectures. For the present it may suffice to say, that cases in which testimony is required, especially where insanity is alleged in excuse for crime, have largely increased of late, owing to the views which some of the ablest recent writers on mental diseases have taken in regard to moral insanity, correct enough when confined within their legitimate sphere, and exhibiting both enlarged philosophical research and philanthropic sentiments, but frequently perverted from their original purpose to shield the worst of criminals from the punishment their crimes so deservedly merit.

The term of moral insanity was first introduced into the psychological nomenclature by Dr. Prichard, and derived great weight from the high authority from which it emanated.

Dr. Winslow says, “The phrase is generally repudiated in our courts of law; it has given rise to much caviling and disputation, and its adoption has unfortunately exposed the profession to great odium and obloquy, and has, I think, very materially damaged the moral weight of medico-legal testimony. It has been asserted that the term is used with the view of protecting the criminal from just punishment, and of shielding vice, extravagance, malignity, debauchery, cruelty, crime, and brutality from the natural emotions of horror and disgust, with which such actions should be contemplated by every right-thinking and well-constituted mind.”*

That this assertion is not without its force, the criminal records of the last few years bear ample testimony. This was the plea urged in

* Journal of Psychological Medicine, vol. 7, p. 427.

extenuation of the crime of homicide in the cases of Palmer and Dane, in England, and of Huntington, in the case of forgery in this country. Medical men should be exceedingly careful how their sympathies lead them to the adoption of these views in criminal trials. They should remember that insanity may be easily simulated and carried out with such tact as to require the utmost ingenuity and perseverance to discover the deception.

“I cannot conceive a position of graver responsibility,” remarks Dr. Winslow, “than that assumed by a medical witness, when called upon in a court of justice to give evidence in criminal cases; let me earnestly entreat him, before discharging these solemn duties, to make himself master of all the facts of the case. He should not assume for granted the representations of those anxious to establish the insanity of the criminal; were he to do so he would occasionally be sadly deceived. He should never forget that he has a *public* as well as a *professional* duty to perform, and he is bound as a citizen of the state as well as a member of an important and learned section of society, to protect himself from the possibility of being deceived as to the facts of any given case presented to him for his opinion. He must not permit his feelings to overpower and interfere with the free and unclouded operation of his judgment; under these circumstances, every possible influence will occasionally be exercised to induce the witness to adopt a view favorable to the prisoner.”*

The safety of society requires that the guilty should be punished. After the commission of the first great crime the perpetrator goes abroad not only a guilty, but a dangerous man.

The case of John Lynch, detailed in a letter addressed to Mr. Gladstone, M. P., by Mr. Justice Thery, and published in 1850, furnishes an exemplification of this point. This man was brought to trial in 1835, with others, for murder. A material witness, who was to prove that Lynch was seen on the day of the murder near the spot, was brought into court in such a state of intoxication as to render his testimony valueless, and the prisoner was acquitted. Six years afterwards this same Lynch was tried for a murder perpetrated under circumstances of great enormity, convicted and executed. Before his execution he made a confession, in which he stated that in the interval between 1835 and 1842, when he was executed, he had committed no less than ten distinct murders. In one case, he says, that after murdering the mother and her son, “none remained but a little girl. The poor little thing had never done me any injury, and I was really sorry for her. I went into

* Dr. Winslow's Lettsomian Lecture.

the hut where she remained, and I said to her—Now, my little girl, I will do for you what I have not done for the others, for you are a good girl, and shall have ten minutes to say your prayers." Here, says the magistrate, Lynch paused, as if he had a difficulty in going on; I supposed it might be a feeling of remorse, and I could easily imagine that the scene of the child begging for life must have been a most pitiable one. I therefore ended the pause by saying: "In short you killed her with the axe," to which he replied, that he did. It is unnecessary to proceed with the relations of this cold-blooded villain, or bring before you the revolting spectacle of his unoffending victims. He may have had a homicidal mania, and perhaps in a refined capital might have escaped on account of the very enormity of his crimes. But it appears to me that this kind of insanity is best treated by hangman's noose and the gallows drop. It is a mistake to suppose insanity developed in the repeated commission of crime. "If people knew," Lynch says, "how easy a thing it is to take away life, these things would happen oftener."

From the frequency of this kind of crime, of late, we are led to the belief that there are many others who have found how easy a thing it is to take away life; and it is possible for either of us to be jostled, in the thoroughfares of this great city, by those upon whose conscience rests a deed of blood. But although the guilty often escape punishment, it is nevertheless true, that, in a larger proportion of cases,

"Murder hath speech, and will declare itself
With most miraculous organ."

In cases like these the medical man not unfrequently furnishes the chief link in the testimony upon which the criminal is convicted. "It is such duties," say Sir John Forbes, "ably performed, that raise our profession to an exalted rank in the eyes of the world; that cause the vulgar, who are ever ready to exclaim against the inutility of medicine, to marvel at the mysterious power by which an atom of arsenic, mingled amid a confused mass of ingesta, can still be detected. It does more—it impresses on the minds of assassins a salutary dread of the great impossibility of escaping discovery."*

Select Cases of Midwifery. BY CHARLES A. BUDD, M.D., Teacher of Obstetrics in the N. Y. Preparatory School of Medicine, etc., etc.

CASE I.—*Uræmic Convulsions—Chloroform—Forceps.* October 17th, 1856. I saw Mrs. R., in consultation with Dr. Hornsby; found

* Quarterly Journal of Foreign Medicine and Surgery, vol. 4, p. 45.

her in labor, with violent convulsions; third confinement; I ascertained that in her first accouchement she had suffered with convulsions also, and that the labor had resulted in the spontaneous delivery of a still-born child. Her second labor was rapid and favorable. She was in her third convulsion when I saw her first. She was immediately put under the influence of chloroform, and kept so for about two hours, during which time the cervix uteri was undergoing the process of dilatation. During this period she had but one very slight convulsion, which lasted about two minutes. I then applied the forceps; the head still being at the superior strait and in the right occipitoparietal posterior position, and delivered her of a fine healthy daughter; rotating the occiput into the concavity of the sacrum, the cord was around the neck. After she was comfortably put to bed, she took one-third of a grain of the sulphate of morphia, which quieted her; she had several slight convulsions during the day, which were readily controlled by chloroform; and about eight hours after delivery, evidences of decided cerebral congestion beginning to show themselves, I bled her to the amount of twenty ounces; this had the effect of quieting her, and about four hours afterwards, that is, about twelve hours after delivery, she showed the first signs of consciousness. For two days after, she was affected with entire suppression of urine, we being unable even to get more than a few drops through the catheter; this condition, however, yielded to spts. nitr. dulc., and the woman made a very rapid and satisfactory convalescence. The blood which was drawn, upon chemical analysis, was found loaded with urea.

P. S.—This woman was again confined during the past summer, and attended by one of our students; she had no difficulty.

CASE II.—*Convulsions, probably uræmic—Face presentation—Forceps—Chloroform.* I was engaged to attend Mrs. S. during the spring of 1857, a thin, spare, delicate woman, pregnant with her first child. At the time of engaging my services, she called my attention to an œdematous condition of her feet and legs, with a peculiarly bloated or puffy expression about the face and eyelids, which at once awakened my suspicions, and I directed her to bring me some of her urine for analysis, which revealed the presence of albumen, and naturally rendered me apprehensive as to the result. I directed the patient to observe the ordinary hygienic rules, and to abstain entirely from an animal diet during the remainder of her pregnancy, which direction I have reason to believe was implicitly obeyed. She was taken in labor on the 12th of March, and before reaching the house I provided myself with a phial of chloroform, so as to be in readiness in case any-

thing occurred. The presentation was one of the face, with the chin to the right ilium, and the stage of dilatation was nearly completed when I first examined her. The pains were quite rapid, but not very severe; and in the course of two hours the face had descended, and the chin nearly completed its rotation under the pubic arch, when gradually the pains began to diminish in frequency and force, and for four hours matters seemed to be at a perfect stand-still, no progress being made; in fact, for this period the woman did not have one actual uterine contraction. She now began to complain of a ringing in the ears; a fullness about the head; and the expression of her eyes showed a peculiar lustre that did not please me. I immediately dispatched a messenger for instruments and assistance, and had taken up the bottle of chloroform, being about to administer it, when the patient suddenly went off into a violent convulsive paroxysm, which lasted, as nearly as I could estimate, about ten minutes, before she responded to the influence of the chloroform; and then perfect relaxation of the whole muscular system seemed to ensue; for in addition to the cessation of the muscular contortions, the woman had a profuse evacuation both from the rectum and bladder. Still, no evidence of uterine action showed itself. Her husband soon returned with the instruments, but without the gentleman whom I had sent for to assist me. I then applied the short forceps and delivered her of a daughter, which was apparently dead, but was eventually resuscitated and did well. The mother took, immediately after delivery, fifteen drops of Majendie's solution of morphia, and slept quietly and uninterruptedly for four hours; when she awoke and asked for a drink. She convalesced without a single unpleasant symptom, and was sitting up on the tenth day. She did not nurse her infant, as there was no mammary secretion.

CASE III.—*Convulsions—Apoplexy—Paralysis.* I was requested to see Mrs. M., in consultation with Dr. Bronson, on the 17th of March, 1857, and found her in the following condition: Total insensibility with obscure muscular twitchings, confined principally to the right side of the body; stertorous breathing; a flushed face; eyes suffused, pupils contracted and unaffected by light; a hard, full pulse, and labor just commencing; the os dilated to about the size of a ten cent piece, and the vertex offering in the *left occipito-iliac anterior* position. I ascertained from the doctor that during the four or five previous days he had been prescribing for an intense cephalalgia, which he had treated by purgatives, and blisters to the nape of the neck. There was no anasarca, although the doctor had, a day or two

before, detected albumen in the urine. With Dr. B's concurrence, she was bled to about $\frac{3}{4}$ xviii., with the effect of softening the pulse and checking entirely the stertor. I then advised the case to be closely watched and (notwithstanding the evidences of brain trouble,) chloroform to be administered in case any convulsive twitchings made their appearance, and that delivery be effected as soon as the soft parts were in a proper condition. Dr. B., having another woman in labor at the same time (a breech case) which he was anxious for me to see, left one of his pupils, Dr. Greensword, in charge of Mrs. M., with directions to administer chloroform upon the first evidence of anything like convulsive movements. Being detained longer than we expected—it was between two and three hours before we again saw Mrs. M.—and found that she had just been delivered of a still-born son, having been under the influence of chloroform almost incessantly since we left her. Her general condition was about the same, with, perhaps, a little less edge to the pulse. The morning after delivery there was complete hemiplegia of the right side of the body, with perfect unconsciousness, in which state she continued for three days, until ptialism had been induced by the use of calomel. She now began to show evidences of returning consciousness, and in about a month, under the administration of the iodide of potassium and a generous diet, her paralysis had entirely left her, and she was enjoying as perfect health as ever. Through the stupidity of the nurse, the blood taken was thrown away, and consequently we had no opportunity of testing it for urea. I neglected to say, that, for two days after labor, the urine was secreted in very insignificant quantities.

REMARKS.—It will be seen, on reviewing these three cases, that they all, most probably, were dependent upon a toxæmic condition for their predisposing cause, and that in case 2nd the irritation of the peripheral extremities of the uterine and vaginal nerves, occasioned by the impeded head, was evidently the exciting cause, thus combining the two great influences of centric and eccentric nervous disturbance. In case 3 there was unquestionably an apoplectic condition, superinduced by a general plethoric constitution, and probably developed by a blood poison and the parturient state, resulting in an effusion upon the brain. Another practical deduction may be drawn from the fact, that only in those cases where artificial delivery was resorted to were the children saved. Case 1, in her *first* confinement, it will be seen, was delivered by the unaided efforts of nature, and her infant was still-born. This is a point which I would, in my present way of thinking concerning convulsions, strongly insist upon, viz., the delivery

of the child so soon as it can be *safely* effected, even though it be apparent that the uterus will be able to accomplish it unassisted. A few minutes of time gained under these circumstances is, I conceive, of vital importance to the child.

CASE IV.—*Arrest of the head for sixteen hours—Forceps—Vesico-vaginal fistula.* I was called on the 5th of August, 1856, in consultation by Dr. Farrington, to see Mrs. H. in labor with her fifth child. I ascertained from the doctor that the head, which was offering in the *left occipito-iliac anterior* position, had become impeded at the inferior strait, before the movement of rotation had commenced, and had remained *in statu quo* for sixteen hours prior to my seeing her. Another practitioner had been called in some hours previously, who advised opium and patience. I found the woman much exhausted, the vagina and vulva dry, hot and sensitive, the abdomen tender to the touch, and the pulse rapid. The head was low down, with an enormous caput-succedaneum formed, so that I was obliged to take the doctor's assertion as regarded the position on credit, which eventually proved to be correct. I subjected her to the influence of chloroform, and applied the forceps, delivering her of a son, which bore evidences of having been dead some time. The cord was around the neck. Two days after delivery, an acute attack of vaginitis ensued, which resulted in sloughing and the formation of a vesico-vaginal fistula nearly one and a half inches in length, *at the very point where the occiput had so long impinged.* She was subsequently treated by Dr. Bronson, (who made use of his mechanical suture,) and cured by a single operation. I cite this case as an exemplification of Dr. Miller's recent aphorism: "A meddlesome midwifery is bad, but a shilly-shally midwifery is worse."

CASE V.—*Impacted head—Enormous fœtus—Craniotomy.* I was requested to see Mrs. L. with Dr. Sitler, on February 19th, 1857, in her eighth confinement. She had been in hard and vigorous labor for seven hours previously, without a particle of advance being made. The head was engaged at the superior strait of the pelvis, (which was rather below the average size,) and had entered, *without flexing*, in the *right occipito-iliac anterior* position. The uterine contractions were as powerful as any I have ever witnessed. Subjecting her to the influence of chloroform, I applied the long forceps and endeavored to flex the head, but so thoroughly and completely had it become wedged, that I could not make the slightest impression upon it. I then perforated, and extracted with the crochet a fœtus of the following dimensions:

Length $23\frac{1}{2}$ inches; weight (without the brain,) a trifle over 12 pounds; bi-trochanteric circumference $13\frac{3}{8}$ inches; bis acromial circumference $16\frac{5}{8}$ inches; occipito-frontal circumference (after the entire brain had been evacuated, the whole of one frontal bone gone, and all the sutures overlapping,) $14\frac{1}{4}$ inches. (For full report of this case, see AMERICAN MEDICAL MONTHLY for March, 1857.)

CASE VI.—*Presentation of the back of the head and neck—Craniotomy.* Although both this and the previous case have been reported before at length, many of the points are so exceedingly interesting to the obstetrician, that I will not offer any apology for briefly detailing them here.

March 29th, 1858. Was called in consultation with Dr. Hough, to see Mrs. B., and found that she had been in active labor more than forty hours, with her third child, and not a particle of progress making. It seems that a left lateral obliquity of the uterus existed, which had caused the vertex to override the pelvic brim, and bring the *back of the head* and nucha to offer at the inlet. After failing to bring down the vault of the cranium with the forceps and vectis, the woman being under the influence of chloroform, I perforated at a point just anterior to the foramen magnum, and after much trouble succeeded in delivering her. After the spontaneous expulsion of the placenta, she was taken with so alarming an internal hæmorrhage, that I was obliged to introduce my hand into the uterus, and remove at least a hatfull of coagula before I could succeed in getting an efficient and permanent contraction. She made a rapid and satisfactory convalescence. (For full report of this case, vide AMERICAN MEDICAL MONTHLY for July, 1858.)

CASE VII.—*Presentation of the left shoulder—Version—Showing the proclivity some women evince to irregular presentations.* I was requested, on March 7th, 1858, to see Mrs. M. by three gentlemen students, and ascertained that they had been making ineffectual attempts to deliver by turning, as it was a shoulder presentation. The membranes had been ruptured and the liquor amnii discharged for nearly four hours previous to my seeing her; the sounds of the fœtal heart were not audible. I found the left arm and hand protruding at the vulva, enormously swollen, the shoulder well packed down in the pelvic cavity, and the uterus contracting violently at intervals of about three minutes. After administering chloroform, I introduced my hand, and after some trouble succeeded in finding the feet, and completing the delivery. The child was dead. This was the woman's fifth child, *three of which had presented by the shoulder, and two by the*

breech. The woman was taken, about a week after delivery, with a smart attack of metro-peritonitis, which yielded to turpentine stupes and the use of calomel and opium.

CASE VIII.—*Rigidity of the Os—Forceps*. I was called on Saturday, October 2d, 1858, to see Mrs. M. in labor with her first child, at about 2 o'clock, P. M., the messenger stating that probably the child would be born before reaching the house. I found her suffering regular and severe labor-pains, which she stated had been persistent for twelve hours previous, but the os still high up, extremely rigid, and not dilated more than sufficient to introduce my finger. I left her, and was again called on Sunday morning about 9 o'clock, and could now detect the head offering, and the membranes ruptured, but not the slightest progress made in dilatation. I then ordered $\frac{1}{4}$ gr. of tartar emetic every half hour, and saw her again about 3 P. M., but no progress had yet taken place; the pains were very severe, but no more dilatation than when I first saw her. I then subjected her to the influence of chloroform, and kept her under its effects for nearly three hours, without making the slightest impression on the os. I next essayed manual dilatation, and succeeded in stretching the os to about three inches in diameter. The woman soon began to show unmistakable evidences of exhaustion, the vagina was beginning to become dry, hot, and tender, the head had barely engaged, and I desired that Dr. A. K. Gardner might be sent for in consultation. He arrived about 8 o'clock, and advised still further delay; the pain soon began to flag, and the sounds of the foetal heart to falter. About 10 o'clock the pains ceased entirely, and the woman's mind began to wander. I then subjected her again to the influence of chloroform, and applied the long forceps, with one blade over the occiput and the other over the sinciput, the head still being at the superior strait, in the *right occipito-iliac transverse* position, and the os rigid and not larger in diameter than an ordinary tea-cup top. After employing the most violent traction I ever used, in fact pulling till I was completely exhausted, and then, being kindly relieved by Dr. G., who also exerted his utmost strength, we succeeded in bringing down and delivering the head. The child lived a week, the mother being affected with complete agalactia. Her convalescence was tedious, being threatened for several days with puerperal mania, which I attributed in part to impurities in the chloroform used.

CASE IX.—*Contraction of the antero-posterior diameter of the brim—Forceps*. Mrs. G., a small, slim, delicate woman, considerably below the average stature, was taken in labor with her third child on No

venber 13th, 1858. She had been attended in both her previous confinements by my father, Dr. B. W. Budd. Her first labor had lasted forty-eight hours, and had resulted in the spontaneous delivery of a still-born foetus; her second had been slightly more propitious, having lasted but thirty-six hours, and her infant being born alive: although in both the woman's convalescence had been slow and tardy, she barely escaping with her life. Dr. B. had recognized contraction of the sacro-pubic diameter of the brim as the cause of her protracted labors, and had resolved to terminate this as soon as the soft parts were in a proper condition. After being in labor about six hours I was sent for, and applied the long forceps, and, after a pretty severe *tugging*, delivered her of a fine, healthy daughter. She recovered without a single unpleasant symptom, and was sitting up on the sixth day. The operation was performed with the woman under the influence of chloroform.

CASE X.—*Abortion of 3 months—Complete extrusion of cervix uteri at the vulva.* I attended Mrs. S. in June, 1854, with an abortion of between 3 and 4 months. The breech presented, and, after the trunk was expelled, the os uteri contracted firmly around the neck of the foetus, and every pain, instead of relaxing the circular fibres of the cervix, only tended to contract them more firmly, and bring down the uterus itself lower in the pelvic cavity, until the cervix actually protruded from the vulva. The constriction was overcome by tiring out the contracted fibres of the neck, much in the same manner as recommended for hour-glass contraction. I afterward treated the woman for prolapsus uteri.—(*Vide paper on Treatment of Prolapsus Uteri—Case I. N. Y. Medical Times for Feby., 1856.*)

CASE XI.—*Hæmorrhage—a portion of the placenta adherent.* I saw Mrs. L. on March 24th, 1858; in consultation with Drs. Hough and Dirix, I found that she had been delivered about two hours previously, and these gentlemen had been endeavoring, by the judicious use of cold, pressure, ergot, &c., to check an alarming hæmorrhage that had been going on for an hour previously. The woman was cold, and nearly pulseless, with rapid respiration, tossing from side to side, and bleeding incessantly. The uterus was soft and relaxed, filling up almost the entire abdominal cavity. Upon examining the placenta, which had been delivered nearly an hour, I found that a portion of it was wanting, and, upon introducing my hand into the uterus, ascertained that a piece about as large as the palm of the hand was still adherent to the uterine walls; this I carefully peeled off, and making counter-pressure over the abdomen, retained my hand in the uterine cavity until it was expelled by a contraction, which I maintained by

using two books as compresses over the fundus, retained in place by the binder. Under the free use of opium and brandy she gradually rallied, and made a very good, though tedious recovery.

CASE XII.—*Unusually long umbilical cord.* I attended Mrs. L. on May 10th, 1858, with her first child, a son. The umbilical cord was twisted around the neck of the child *four times, and once around the body.* Not having any facilities for measuring it, I placed the placenta in a “pot de chambre,” upon the floor, and, taking hold of the divided end, found that it reached to my clavicle, when standing erect. I directed it to be preserved for me until my next visit, but, through the ignorance of one of the attendants, it was thrown away. I have since ascertained that, allowing three inches for the thickness of the placenta and the bottom of the chamber, the cord must have measured, *at least*, 4 feet 9 inches.

No. 143 East 13th Street, *New York, December, 1858.*

Homœopathic Tolerance and Allopathic Bigotry. BY A. L. CARROLL, M.D.

He who has ever read a homœopathic journal, or conversed with a homœopathic practitioner or layman, is doubtless familiar with the severe reprobation lavished by our infinitesimal brethren upon the intolerance of the “old school;” an intolerance which they pronounce in the highest degree inimical to progress in medical science, and unworthy of true disciples of the healing art.

They also accuse us of “stealing” their therapeutic agents, and making use thereof in a deceitful and dishonest manner, for the base and selfish purpose of relieving our patients without giving due credit to the founder and subsequent elaborators of their system. To quote from an article emanating from their own ranks, “We must do this,” (i. e., mix drugs in prescriptions,) “to protect us from the inroads of the old school, who are always ready to swallow up homœopathy by stealing from our *materia medica* the indications for drugs in diseases.”

Let us see whether they act up to their own principles; if they display none of that bigotry which they so highly condemn in others; if they refrain from “picking and stealing” from our therapeutics, and confine themselves to the working of their fundamental rule, “*Similia similibus curantur.*”

The article by which this paper was suggested is entitled “Remissions and Exacerbations in Diseases, in connection with the selection

of Remedies and their Doses. By E. E. Marcy, M.D., of New York." This article may be found in the "North American Journal of Homœopathy," for August, 1858; and, as Dr. Marcy assumes to be the incarnation of "pure and scientific (?) homœopathy," we select his essay as an appropriate basis for a few remarks concerning the points mentioned above.

First, as to the general tenor of the article: No mention is made of the pathology of remittent types of disease; not the slightest efforts made to reach the *causes* of the phenomena of periodicity; but the roughest and most rudimentary *resumé* of the symptomatology of a typical instance of remittent fever forms the foundation for the (so-called) scientific superstructure of therapeutic indications. We quote his own words: "He, (the physician,) finds, for example, an active circulation, a morbidly excited brain and nervous system, an access of animal heat, a general suspension or diminution of the various secretions, great restlessness, anxiety, and sleeplessness, intense thirst, parched mouth and tongue, flushed cheeks, and severe pains in different parts of the body. These positive symptoms may continue from twelve to sixteen hours, and then be succeeded by quite a different group, like a nearly normal circulation, a tranquil brain and nervous system, skin moist and cool, tongue and mouth moist, absence of thirst, and a general freedom from restlessness, anxiety and pains." Here endeth the first lesson! This is the entire basis of our homœopathic brother's "ars medendi." Verily, his science, like his medicine, is administered in exceedingly minute doses, and savors somewhat of the pernicious method of taking effects for causes, of which the "old school" has been accused by the "new lights." In an article from our "orthodox" ranks upon the same subject we should expect to find a physiologico-pathological dissertation upon the state of affairs indicated by the symptoms, and their probable cause; but this, according to our learned essayist, is unscientific. Symptoms unconnected with pathological states are all that are required for his philosophy.

In the succeeding, even shorter paragraph, he has embodied the remedial alternatives, as thus: "In a case like this, what is the duty of the physician? Is he to prescribe for the symptoms (mark that! *symptoms!*) which are present during the febrile paroxysm, and, when the remission occurs, to select another remedy which corresponds to this opposite condition? or is he to take into consideration both the remission and exacerbation, and prescribe for the 'totality of the symptoms' of the malady as a unit?" Poor Therapeia! "can it be that this is all that's left of thee?" Farewell, Physiology! Farewell, Pa-

thology! "I love thee well; but never more be officer of mine." Henceforth we have only to note down symptoms simply *as* symptoms, and search for the same or similar symptoms in some "symptomen codex." And this mechanical routine is called science!

One would think that, having reduced the practice of medicine within such narrow limits, there could be but little grounds for difference of opinion among the advocates of such a school; yet we find Dr. Marcy at variance with Hahnemann by his own quotation from that author: "In searching after a homœopathic specific remedy," says Hahnemann, "that is to say, in making a comparison of the entire symptoms of the natural disease with those produced by known remedies, in order to discover among the latter an artificial morbid power resembling the natural disease which is to be cured, we ought to be particularly and almost exclusively attentive to the symptoms that are *striking, singular, extraordinary and peculiar, for it is to these latter that similar symptoms, from among those created by the medicine, ought to correspond, in order to constitute it the remedy most suitable to the cure.*" (Organon, page 155.) Dr. Marcy adds, "Here we have a reasonable and simple rule of action." Simple enough, in all conscience! and indicating, as Marcy himself states, that the remedy is to be selected to meet the "striking" characteristic phenomena of the disease; yet a few sentences further on we meet the following: "In a vast majority of cases quite too little attention is paid to this minute accumulation of symptoms, because it involves the expenditure on the part of the physician of much time and labor. The shorter method of selecting remedies at hap-hazard, or antipathically, is too often adopted, thus retarding the progress of our school, and bringing discredit upon its honest advocates." Now, without pausing to ask whether the doctor understands the meaning of "antipathically," and knows that antipathic remedies are only to be found for two or three morbid states, we would merely inquire if the two last made quotations be consistent one with the other? In the former, he sanctions the "almost exclusive attention" to striking characteristics, and in the latter enjoins the "minute record," because "when this record is complete only a few very minute doses of the drug are necessary to effect a cure."

The whole question imbodyed in the magniloquent title of the article having been satisfactorily set at rest in two pages, our essayist now proceeds to elucidate the *modus operandi* of minute and attenuated doses; and here again his theory differs strikingly from that of the founder of his school. Hahnemann mystifies himself and his readers over the disturbances of the vital principle producing disease, and the

dynamization or development of the spiritual virtues of a drug by its dilution or trituration; the friction employed in this process elevating the said dynamic properties by magnetic elimination, and enabling the remedy to meet the disease upon its vital or spiritual plane. Dr. Marcy, on the contrary, explains the mystery of infinitesimal action on the principle of chemical affinities existing between the tissues of the diseased parts and the atoms of the remedy—an affinity which he illustrates by the action of “a few drops of diluted sulphuric acid” upon “any quantity of starch,” the affinity of a bar of iron with a small quantity of powdered charcoal, &c., and which, in the case of the sulphuric acid and starch, with the most noble disregard for etymology, he dubs with the title of “homœopathicity.” After drawing this comparison, he says: “It is unquestionably true that every tissue of the body has some special attraction for certain drugs, and may be impressed and modified by contact with them.” In addition to this variance from the teachings of Hahnemann, Dr. Marcy is also at variance with common experience: First, when he states that “the infinitesimally subdivided poisons of yellow fever, cholera, small-pox, scarlet fever, measles, and other epidemic, miasmatic, and contagious maladies, produce their specific impressions (in homœopathic doses, let it be observed,) upon the various tissues with which they have catalytical or toxical relations.”

We have neither space to enter upon the consideration of infection and contagion, nor to discuss the etymological error of applying the adjective “homœopathic” to doses or morbid impressions; but we may ask on what grounds the above statement is made. There is no proof or probability that the said “homœopathic doses” of contagion or infection are capable of producing disease, but we may rather suppose that, in the case for instance of marsh miasm, persons residing some ten or twenty miles from the infected district get a true “homœopathic dose” of the poison. Many arguments might be adduced to show that, although the poison be diluted with atmospheric air, it requires pretty large “doses” to produce its specific effect.

Secondly: When Dr. Marcy states that a diseased tissue acquires an increased affinity for the drug atoms, so that a less quantity is required to produce an effect than in health, he again manifests a disregard for the teachings of experience, for opium is declared by his school to be homœopathic to delirium tremens, yet we all know that in this disease the tolerance of opium is very greatly increased. Quinine, as a specific for intermittent fever, was the foundation of Hahnemann’s theory, and is used by him as the type of homœopathicity, and

tolerance of quinine is also increased in this malady. We might accumulate instances without number of this greater tolerance of remedies claimed as homœopathic by our brethren of the new school, but let these suffice, for our space is limited, and we wish to show that our essayist is not only at issue with his own school's doctrine and with common sense, but with facts. In a journal, whose prospectus (fourth page of cover) informs us that "Pure Hahnemann Homœopathy, Progressive Homœopathy, and Allopathic Medicine will be honorably and fairly represented—never misrepresented," we are rather surprised to meet with the following: "Tell the old school physician, whose medical faith has been derived from the dusty tomes of antiquity, who forgets that everything valuable pertaining to science and art is of recent date, and who mistakes *antiquity* for *knowledge*—tell such a man of the therapeutic powers of imponderable atoms of drugs, and, like the ruder specimen of humanity just alluded to," (i. e., a "rude savage,") "he will pronounce the assertion absurd. He judges all things from *his own* stand-point of knowledge, and sustained by the crude dogmas handed down to him from the dark ages, he bids defiance to modern discoveries, modern researches, and modern facts, and repudiates all reasonings and all deductions which are not based upon the recorded data of the past. Every new idea, every new fact which clashes with his preconceived notions, he denounces without investigation, and falls back in anger and bitterness of spirit upon his antiquated relics."

In quack advertisements, heralding the virtues of some "universal panacea," we frequently see a prefatory diatribe like the preceding against the regular school; but it certainly is rare, even from the Homœopathic ranks, to encounter such a wholesale and intentional perversion of facts. New ideas, newer perhaps than are included in Dr. Marcy's philosophy, are daily being eliminated and joyfully received by "allopathic scoffers" as he terms us. Let us remark, *parenthese*, that it is not we who have assumed the title "allopathic," but that it has been gratuitously conferred upon us by the Homœopaths. But as to new ideas, perhaps even Dr. Marcy might be enabled to discover some in the recent works and discoveries emanating from our "old school," Draper, Paget, Rokitansky, Brown-Sequard, Lebert, and many others may, if he will deign to cast an eye upon the results of their labors, furnish him with a few "researches, facts and reasonings," based, it is true, on the established scientific "data of the past," but none the less valuable on that account.

We of the regular school do not consider ourselves as sectarians,

bound down by narrow and limited rules of action, but endeavor by a patient investigation of the positive sciences to deduce a rational and philosophical rule of action as regards the therapeutic art. That we are not a sect is proven by the fact that great diversity of opinion on theoretical points exists among us; one man using tonics and stimulants, where another employs antiphlogistics. We are united on the common platform of scientific fact; but, where demonstrated facts fail us, each individual uses the reasoning faculties which God has given him, and the scientific education demanded for the foundation of his arguments forms the characteristic feature of the true votary of our noble profession; an education so boundless in its scope that the true scientific physician must ever be the best informed member of a community. How does the Homœopath fulfil these indications? To practice homœopathy, no scientific acquirements are demanded of the practitioner. If he ever inquire the *cause* of the symptoms to which his attention is directed; if he waste one thought upon the pathology of the disease, it is as a matter of curiosity, not of necessity, and we have the whole practice of medicine introduced with a flourish as follows: "Science, reason, experience and facts all demonstrate the sound philosophy of the homœopathic doctrines. Let us examine. In the first instance, the physician is required to record all the symptoms of the natural disease. He notes every circumstance connected with the approach, the presence, and the disappearance of these symptoms, as well as the age, temperament, susceptibility, idiosyncrasy, and sex of the patient. Thus he acquires a complete knowledge of the malady. In the second place, he selects from his *materia medica* a medicine which operates upon the diseased parts, which has a specific relation, affinity, or homœopathicity with these parts, and which is capable of producing an impression which enables the recuperative forces to throw off the morbid influence and re-establish the normal condition. * * * The essential condition of success is, that the pathogenetic phenomena of the remedy should correspond accurately with the grand totality of those of the malady."

Such is Dr. Marcy's homœopathic theory. Others of his school explain the action of a "similar" remedy by comparing the disease to a pendulum, the drug giving this pendulum an additional impulse in the same direction, and thus increasing the impetus of its return. When the said pendulum has gone as far in its morbid vibration as is consistent with life, however, their simile does not present a very satisfactory prospect to the physician.

Other, and very diverse theories of action are held by homœopathic

authorities, but in practice they are agreed. The symptoms are to be minutely recorded and compared with the amusing pathogenesis of drugs in "Jahrs symptomten codex" until "accurate correspondence" is detected. If this be science, it is science easily attainable by any one not quite an idiot. Reading and writing are all the educational attainments requisite for its pursuit; or if its disciple be not able to write, he may take "Jahr" to his patient's bed-side, and as each symptom is enunciated, "look it up" in the printed record.

As to the accusation so often brought against us of "stealing" homœopathic remedies, let us remind our accusers that many of their "specifics" were in use among us before Hahnemann was born. Tartar emetic in croup, mercury in syphilis, sulphur in scabies, &c., belong to our "dusty tomes of antiquity," and even where we cannot explain the *modus operandi* of a drug in such a lucid and "scientific" manner as our brethren, we are willing to use it empirically if experience prove it beneficial; our object, as practical men, being to relieve our patients, not to uphold a sectarian dogma, or, as a Dr. Henry in an article beneath criticism, a few pages further on, exhorts his homœopathic brethren to "stand as *bigots* upon this great principle." (He himself giving a series of allopathic prescriptions in the same article.)

We are not bound by any rules to abstain from using whatever we think may be beneficial to our patient, nor do we conceal the fact that we use many remedies empirically, yet this is no justification for the imputation of dishonesty. To hear a homœopath discourse on this topic, one would imagine that all our successful treatment was filched from him and his confreres, and that we waited in inaction until the opportunity offered to pounce upon the fruits of his labors. Aconite is the chief item in the indictment against us, and homœopathic physicians and patients all join in the hue and cry against our use of their "homœopathic lancet." Now, it will perhaps surprise some of the said patients (for we cannot, of course, impute ignorance to the physicians,) to learn that aconite is *not* homœopathic to febrile states, but depresses the circulation in health as well as in disease. The *Hamamelis virginica*, or witch hazel, a remedy just coming into notice, is not homœopathic to venous hæmorrhages, though used by many homœopaths in such cases; nor was it brought into notice by them, but rather as a "patent medicine," under the name of "Pond's extract," or "vegetable pain destroyer."

But do the homœopaths never themselves commit what they are so prone to accuse others of? We "happen to know" that Dr. Marcy himself has given, and is giving the "hypophosphites" in cases

of tuberculosis (indeed we understand that he claims to be their originator.) Is this treatment homœopathic? Does it not rather savor of "stealing our thunder?" or do this and other similar instances make it appear that Dr. Marcy and his school are living in a remarkably fragile "glass house," from whence they amuse themselves by throwing large stones at their neighbors?

We cannot more appropriately close this paper than by quoting Dr. Marcy's concluding paragraph, a peroration embodying what Thackeray calls "the hoighth of foine language entoirely," and, merely taking exception to the phrase "doctrines of allopathy," we refer the paragraph entire to the consideration of its author, hoping that he may be enabled at some future time to discountenance sectarianism by example as well as precept.

"Modern researches have thrown a flood of light upon everything pertaining to art, science, and human progress. Many things which have heretofore been ranked among the mysteries of science and nature, are now clearly understood and appreciated. The art of healing has participated in this general advancement, and the hypothetical assumptions which enslaved the medical world for more than two thousand years have now become obsolete. The ancient fathers of medicine, who promulgated the absurd doctrines of allopathy, had not the light of science to guide them, but groping in the darkness of antiquity, they relied upon their imaginations, and upon oracles from heathen temples, for data, and deduced their conclusions accordingly. But they were honest, and acted according to the limited facilities within their reach. Their teachings have been pernicious to the human race, but they erred in ignorance; therefore may they still slumber on in peace and silence; but let every medical man of the present day sound aloud, and continually, the silver clarion of truth and progress, until the advocates of ancient errors shall pause and investigate, test and acknowledge the truths of modern medical science."

Report of Cases occurring in Bellevue Hospital, N. Y. By J. M. FARRINGTON, M.D., late House Surgeon.

CASE I.—*Fracture of Skull—Compression of the Brain by Extravasation—Death.* L. J. M., æt. 30, of robust appearance, was admitted in hospital at 9 P. M., March 25th, 1857. The police, who brought him in, stated that while in a state of intoxication he fell backwards from off the steps of the police station, striking his head upon the

side walk. He had not manifested any consciousness since the fall. On admission the surface was cool, the right pupil dilated and insensible to light. He vomited about two ounces of a dark yellowish fluid soon after the fall, which emesis the police supposed to be due to a quid of tobacco which he swallowed at the time of the accident. There were no external marks of injury, excepting an echymosis of the left conjunctiva. The pulse was 66, slow and moderately full. He was ordered a turpentine enema, hot-air bath, friction to the surface, with turpentine and cold to the head. Various attempts were made to arouse him from his comatose condition, but all in vain.

At 10½ o'clock the left pupil also became dilated. His pulse sank to 52, but remained full and firm.

At 12 o'clock his condition was about the same, both pupils dilated and insensible to light. Respiration very irregular. Soon after he rapidly sank, and died at 1 o'clock, four hours after his admission.

At the post-mortem examination a fracture of the left parietal bone was discovered. A sharp spicula of bone had lacerated the arteria meningeal media, over which the fracture occurred, and from this source a large amount of blood was extravasated, covering both hemispheres of the brain, and entering both of the middle fossæ of the base of the skull.

CASE II.—*Concussion of Brain—Recovery.* G. H., an express agent, was admitted May 6th, 1858, at 2¼ P. M. About half an hour previous he was knocked from the platform of a car by the locomotive of a passing train. As he was looking out he was struck on the side of the head and rendered insensible. At the time of his admission he was in a state of semi-consciousness, drowsy, pulse 56, slow and feeble; respiration 24, surface cool. Ordered hyd. sub. mur. et pulv. jalapæ ää gr. x, and a stimulating enema. Hair to be cut short and cold applied to the head.

At 3¼ o'clock was able to answer questions; said he had pain in his head, and that he felt cold. Ordered friction to the surface and bottles of hot water to the feet. Soon after the exhibition of the cathartic powder he vomited up about 8 ounces of liquid.

At 4¼ o'clock the pulse was full and moderately strong. Temperature of surface higher, yet still cool. Ordered an extra blanket. Headache severe; ordered ice water to be freely applied to the head.

6 P. M. Surface warm, pulse full and strong, 64 per minute. The palid hue of his face was gone, and the normal color had returned.

By watchful care to avoid the establishment of any inflammatory condition, (the observance of strict quiet, refrigerant laxatives, spare

diet, etc.,) his convalescence progressed without any untoward symptoms, and, as I learned from him several months after, his recovery was perfect, there being no impairment of the mental powers.

CASE III.—*Concussion of Brain, with Contused Wound of Head—Death.* B. C., æt. 45, an Irishman, of good constitution, but of intemperate habits, a hackman, was admitted in hospital November 15, 1857, at 6 P. M. About two hours prior to his admission he fell from his coach, striking upon the right side of his head; the reins became entangled and caught round his legs, and thus his horse dragged him for a short distance, the side of his head being in contact with the pavement.

He was picked up in an unconscious condition and carried into a drug store, when the hair was cut from the side of the head, and restoratives administered.

The scalp on the right side had two badly contused wounds; the anterior one over the temporal artery, the posterior directly above the ear. There was great tumefaction of this side of the head. On examination no fracture of the skull could be detected, and neither of the wounds were deep enough to injure the periosteum. There was some hæmorrhage from the anterior wound, which was easily arrested by bits of charpie. The cartilages of the right ear were divided in several places. At the time of his admission his consciousness was returning. He could speak, but gave short answers, and was somewhat drowsy. Surface moderately warm, pulse 76, full and normal. Ordered water dressings to be applied, and changed every half hour during the night. He passed the night well. The pulse came up to 95, and he continued drowsy during the following day. Bowels were moved by enemata. On the second day erysipelas attacked the eyelids, and tr. ferri. chloridi. was ordered, ʒss. every three hours. He continued to do well, the erysipelas subsided, but the iron in combination with the infus. colombæ was continued as a tonic. There was much suppuration from the contused parts, such as to require frequent dressings. The parts were poulticed after the second day with ground flaxseed.

On the 27th some of his relatives came and persuaded him to go home, and notwithstanding the cautions of the medical attendants he left for home in a carriage. In 24 hours he grew worse, and died on the 19th. The kindness of his friends (?) unquestionably cost him his life. Had he remained at the Hospital, and been kept quiet, his complete recovery was almost certain. The excitement attending his removal, the want of care, and noise at his friends' house,

and, perhaps, the use of alcoholic liquors, induced fatal meningitis.

CASE IV.—*Concussion of Brain, with extensive contusion of the Scalp.*—*Recovery.* J. M., æt. 27, a coachman, of intemperate habits, but of robust constitution, was admitted November 22d, 1857. Four hours previously, while intoxicated, he fell through the floor of a new building a distance of 20 feet. He was found by the police and conveyed to a police station. It was two hours after the accident before he manifested any evidence of consciousness.

At the time of his admission to the surgical wards, the temperature of his surface was rather low, the pulse quite normal in character, the pupils wonderfully dilated, and his mental condition as one intoxicated. There was a large bloody tumor forming upon the scalp. There was a small wound on the vertex, just to the left of the median line; it did not extend through the integument, and was about half an inch in length.

His head was shaved over the injured side, and cold-water dressings applied, with directions to the nurse to change the cloths frequently.

On the following day the tumefaction had considerably increased in extent, covering the whole of the vertex and extending from ear to ear. Bowels moved freely—felt pretty comfortable. Upon his scalp were several white lines, the cicatrices of a severe contusion he received six months previously, and he stated that the doctor caused union so that he was able to work three weeks after he received the injury. He said that 13 sutures were applied, and no erysipelas followed. On the 24th he still felt comfortably, tumefaction of the eyelid was coming on, pulse normal, tongue slightly coated. Was discharged on that day at his own request, and his wife took him home, against the advice of the attending surgeon; and although I had ill forebodings of the result of his case, I subsequently learned that he recovered.

CASE V.—*Fracture of the external table of the skull.* C. M., an English woman, æt. 40, of good constitution, was admitted in Hospital, March 19th, 1857. At the time of her admission she was bleeding profusely from a contused wound of the scalp, caused by a blow from a stove-lid. The solution of continuity was over the left parietal bone, a short distance from its posterior superior border; it was about two inches in length, and communicated with a fracture of the external table of the skull. The fracture could be distinctly felt with the finger, a portion was slightly depressed, and the adjoining edge of bone sharp and rough, the line of fracture was irregular and extended about $1\frac{1}{2}$ inches.

A compress was applied over the wound, which arrested the hæmorrhage. At night she complained of severe pain upon the opposite side of the head. She was perfectly conscious at the time she was brought in the ward, and continued so until she was discharged.

On the 21st there was some febrile excitement, the pulse was frequent, face flushed, and meningitis was feared. A stimulating enema was ordered to be given, and the following powder to be taken:

R.—Hydrarg. sub. mur. gr. x.
Pulv. jalapæ, gr. xv.
M.

All of which operated freely. Other means were used to allay the access of inflammation, and the following day the febrile symptoms abated and gradually left her, and she continued to do well. Anxious to be at home, she asked and received her discharge on the 25th. The final result of the case I have not been able to ascertain, but presume that it was favorable.

Report of the Committee of the N. Y. Pathological Society, appointed to examine the Case of Mr. E. A. Groux, affected with Congenital Fissure of the Sternum.

Mr. Groux has a congenital fissure of the sternum situated in the median line, and extending the entire length of the bone.

There appears to be no deficiency of the bony substance in this case, but a simple median fissure. The clavicles are articulated with the lateral halves of the sternum, and the costal cartilages join the bone on each side in the usual manner. The sternal attachments of the sterno-mastoid muscles are also in their natural position; but the sterno-hyoid and sterno-thyroid muscles, both right and left, are attached below to the left half of the sternum. The left half of the sternum is also situated upon a plane somewhat anterior to that of the right; so that, when the two edges of the fissured bone are drawn together by muscular action, the left edge projects slightly in front of the right.

When Mr. Groux stands erect, in an easy position, the fissure is one inch wide at its widest part, i. e., about the junction of its upper and middle thirds. By forcible separation of the two halves of the sternum, the width of the fissure at the same spot is increased to two inches. By forcible approximation, it is diminished to a quarter of an inch.

The space between the two lateral halves of the sternum is covered

by integument, and apparently also by a strong subcutaneous fibrous sheet or aponeurosis, which unites the edges of the bone, and prevents their separation beyond the limits above mentioned.

The respiratory sounds generally, over the chest, as perceived by auscultation, are natural in character. The impulse of the heart, also normal in character, is felt at or a little above the level of the fifth rib, a little inside the plane of the left nipple.

In the medio-sternal space, in the ordinary erect position of the body, there is visible to the eye a pulsating tumor, situated apparently just beneath the integument and subcutaneous aponeurosis. The pulsations of this tumor extend from the second to the fourth intercostal space, and from the median line to the left edge of the fissure. They consist of alternate dilatations and contractions, which correspond in frequency with the pulsations of the heart and arteries. The filling up of the tumor takes place from below upward, and from left to right; while its contraction runs in an opposite direction, with a rapid wavy motion, from above downward and from right to left.

The contraction of the tumor is synchronous with the impulse of the heart, at the level of the fifth rib.

A majority of the committee perceive a slight interval of time between the contraction of the tumor and the pulsation of the carotids in the middle of the neck. All the members of the committee are agreed that there is a perceptible interval between the contraction of the tumor and the pulsation of the temporal arteries.

If a stethoscope be applied to the tumor, the two cardiac sounds are heard very distinctly, and natural in character.

If the finger be pressed deeply into the medio-sternal space immediately above the tumor, there is felt, exactly in the median line, a rather firm, deep-seated, pulsating body, which is beyond a doubt the ascending portion of the arch of the aorta. By applying the stethoscope firmly in this situation, the double cardiac sounds may be heard quite as distinctly as upon the superficial pulsating tumor. The pulsations of this part of the aorta, as perceived by the finger, are synchronous with the impulse of the heart, at the level of the fifth rib.

When Mr. Groux takes a deep inspiration, followed by a long, slow, and forcible expiration, the pulsating tumor in the medio-sternal space disappears at the time of inspiration; but toward the end of the expiration it again shows itself, and gradually becomes very much increased in size. It enlarges from below upward, on the left of the median line, till it reaches, at its highest point, the level of the lower edge of the first rib, on the left side. It also enlarges from left to right; until, at the level of the third costal cartilage, it extends quite

over to the right edge of the fissure, and thence occupies the whole width of the fissure, down to the level of the fifth costal cartilage.

If this experiment be tried while Mr. Groux lies upon his right side, the tumor becomes excessively prominent, and at the time of its greatest distention a band is seen extending across it in a nearly horizontal direction, and partially dividing it into two upper and lower halves. In the opinion of the Committee this appearance is probably due to an unusually prominent fibrous bundle of the intersternal aponeurosis, which produces a partial constriction of the tumor at his point. When respiration again commences, the tumor is reduced to its original size, and its pulsations for a few seconds are more hurried than usual.

This pulsating tumor has been considered by different observers to be—1st, the right auricle; 2d, the right ventricle; 3d, the aorta.

The Committee are of the opinion that it is not the right auricle; for the pulsations of the tumor, in its ordinary condition, are situated altogether to the left of the median line—at least they do not extend toward the right beyond this line. The right auricle, on the contrary, in the natural position of the heart, is seated altogether to the right of the median line. The body of the auricle is very deeply seated, and quite posterior to the plane of the ventricle; and the only part of the auricle which approaches the front of the chest is the appendix. This, however, is situated quite to the right of the median line, even when distended, lying sometimes behind the second costal cartilage and second intercostal space, sometimes at the third costal cartilage and sometimes at the third intercostal space. If the tumor in this case, therefore, be the right auricle, the heart must be considerably displaced toward the left. But the aorta can be felt, as above stated, in its normal position in the median line; and the point of the heart strikes the chest, also in its natural position, a little inside the plane of the left nipple. The Committee, therefore, regard it as certain that the whole heart is normally situated; and that consequently the pulsating tumor seen in the fissure cannot be the right auricle.

They are also of opinion that it is not the aorta; for if the superficial tumor to the left of the median line be the aorta, then the deep-seated pulsations above and in the median line must belong to the arteria innominata. But the characters of the two pulsations, which would be the same were they both arterial, are in reality very different. The deep-seated pulsations give to the touch the sensation of a firm, vibrating, cylindrical body, the tension of which does not vary very much at different times; the same sensation, in fact, which is communicated to the finger when placed upon the aorta of a living animal.

The superficial tumor, on the contrary, is alternately hard and soft, and exhibits a very free pulsating movement.

Furthermore, when the superficial tumor is distended, as above described, in expiration, it extends upward, near the left edge of the fissure, toward the top of the sternum; so that this part of it is on the same horizontal level with the deep-seated pulsating body in the median line. The latter, therefore, cannot be the *arteria innominata*, unless it happens in this instance to take an abnormal origin from the side or the concavity of the aortic arch.

If the superficial tumor also be the aorta, it is not easy to understand why it should become distended during a forced expiration.

The Committee are of the opinion that the pulsating tumor in the medio-sternal space is the right ventricle.

First—On account of its situation. In the natural position the most superficial portion of the heart is the anterior surface of the right ventricle. The *conus arteriosus* lies to the left of the median line, at the level of the second intercostal space. The bases of the aorta and pulmonary artery are situated nearly upon the median line, at the level of the third costal cartilage, and the right ventricle lies behind the sternum, from this point down to the sixth or seventh costal cartilage. There is every reason to believe that this is very nearly the position of the ventricle in this instance. The only peculiarity of position, therefore, would be that in Mr. Groux the heart is placed a little higher in relation to the ribs than in the majority of instances. This is actually the case in him, since the point of the heart strikes the chest at, or a little above, the fifth rib. The pulsating tumor, therefore, corresponds in situation with the right ventricle, and with no other portion of the heart.

Secondly—The character of the pulsations corresponds with those of the right ventricle. They are wavy and peristaltic, and run from above downward, and from right to left. The contractions of the appendix auricularis, on the other hand, (the only part of the right auricle which could present anteriorly,) are different in character, and are directed from the point of the appendix toward the body of the auricle, more posteriorly and toward the right.

Thirdly—The most striking proof is that derived from the appearances produced by a suspension of the breath in prolonged expiration. When the heart is exposed in a living animal, and the movements kept up by artificial respiration, if the respiration be suspended for a time, the blood soon begins to accumulate on the right side of the heart, producing a distention of its cavities. Under these circumstances, the

right ventricle becomes swollen quite as soon, and to quite as great an extent as the right auricle; and the swelling takes place from left to right quite as much as from right to left; so that the right ventricle extends much further beyond the median line, and occupies much more of the space just behind the sternum, than in the natural condition. The conus arteriosus also swells and becomes prominent from left to right.

Two of the Committee have found the same condition of things in the human subject after death, which has been preceded by distention of the right side of the heart. The right auricle, under these circumstances, though very full of blood, projects but little or not at all to the left of the median line; while the right ventricle extends beyond this line, to the right, for at least one inch.

When Mr. Groux suspends the breath in a long and slow expiration, the distention of the tumor, already described, corresponds exactly with that of the right ventricle. The swelling does not take place from right to left, but from left to right. The upper part of the distended tumor, corresponding with the conus arteriosus, comes prominently into view, to the left of the median line, running up to the lower edge of the first rib; while its lower portion extends over to the right edge of the fissure, at the level of the third costal cartilage, and thence downward, exactly in the position of the right ventricle, to the fifth costal cartilage. During this time the pulsations continue, but the contractions are incomplete, and the tumor does not disappear at any time until a new inspiration has taken place.

There are several other appearances, more or less connected with the fissure of the sternum in this case, which have some interest.

(1.) When Mr. Groux takes a moderately full inspiration, and then compresses the chest suddenly by muscular action, a portion of the lungs are forced out at the upper part of the fissure, forming a prominent oval tumor, highly resonant on percussion, which disappears on again relaxing the muscles. The Committee are unable to decide whether this protrusion is formed by the right or the left lung, or by both together.

(2.) When Mr. G. lies upon his right side, the heart falls a little over in the same direction, and the tumor then becomes more prominent, and passes a little beyond the median line. When he lies upon his left side, the heart falls away to the left, and the tumor slightly recedes.

(3.) When the heart has become very much distended by prolonged expiration, its pulsations may be felt on the left side of the chest, gradually extending from the fourth to the second intercostal space.

(4.) Mr. Groux has also the power, by making two or three quick inspirations and then forcibly compressing the chest, of stopping the pulse at the left wrist. This is perhaps due to the unusual mobility of the clavicle, by which the subclavian artery is compressed at the top of the chest.

JOHN C. DALTON, JR.,
JOHN T. METCALFE,
EDMUND R. PEASLEE, } *Committee.*

PROCEEDINGS OF SOCIETIES.

New York Pathological Society. Regular Meeting, July 14th, 1858,
E. R. PEASLEE, M.D., the President, in the Chair.

[Reported for the MONTHLY, by E. LEE JONES, M.D., Sec'y.]

Specimens of Tænia expelled by Koussou.—DR. CONANT presented a couple of specimens of tænia from a couple of Frenchmen, who have not been long in this country. They were both expelled by the koussou. The method of administration was this: the patients went without food for nearly two days, then a hearty meal was taken, and an hour after the koussou was taken, followed an hour or two after by the administration of castor oil. In each instance the result was the production of the tænia. One is 90 feet in length, and the other is not quite so long.

DR. CLARK observed that these two specimens both came from Frenchmen. Among all the specimens that he has seen or heard anything of in this city, there were none that have been procured from persons born in this country. He possesses four or five specimens, but all are from foreigners. During the past year, whenever he has heard of the existence of a tape worm, he has been in the habit of saying he or she is of foreign birth, to which an affirmative answer has been uniformly given. He would, therefore, inquire if any gentleman present is familiar with an instance of tænia occurring in a native of this country, feeding upon the meats produced here?

DR. CONANT had a case in the person of an engineer, who was born in this country, but was upon a steamer that ran to Havre.

DR. SEWALL had one in a young man born in Boston.

DR. HENSCHALL knew of a case, born in this country, who travelled

through Germany, eating the salt pork of that country, and came back with a tape worm.

DR. CLARK supposed that the most common cause of *tænia* in persons here was measly pork, which contained the *ecchinococcus*; especially is this the case if the pork be eaten raw, in which case these animals will develop themselves very readily in the stomach. It would seem that ordinary cooking is not able entirely to destroy them. Measly pork is said to exist in Ohio, but it seems to be different from that in Europe, where the hog seems to be filled full of them. The *ecchinococcus* is one of the forms assumed by the tape worm in its earliest stages of existence.

DR. SCHILLING had seen a good many cases of *tænia*—about forty. The last case was in a grocer, who had been in the habit of eating raw pork. Two very large ones were expelled by the administration of kousso. He was born in this country.

Corroding Ulcer of Os Uteri.—DR. CONANT next presented a specimen consisting of a part of the uterus, rectum, and posterior wall of the bladder, taken from a woman 35 years of age, who had one living child, and had miscarried several times. Attention was first drawn to the case last fall, when, on introducing the finger into the vagina, the cervix was found entirely gone, and passing further up it came in contact with a tumor. Her symptoms previous to this time were severe pains in the sciatic nerve, and profuse flooding at each menstrual period. *Diagnosis.*—Corroding ulcer, and *not cancer*. Two weeks after he examined the case and found that the os was lacerated, as though the substance within had been forced through it. There was a piece torn off about the size of a ten cent piece. Previous to that time there had been a very offensive discharge, and shreds of membrane had come away.

Autopsy.—The uterus was found in situ. There seemed to be no trouble about the bladder. The ovary of one side was more or less elongated and bound down. He removed the rectum, posterior wall of bladder, and lower part of the vagina. The os was gone—then looking a little further between the uterus and rectum he found the whole neck gone.

DR. PEASLEE.—Any opening into the peritoneal cavity?

DR. CONANT.—None whatever.

DR. SANDS asked Dr. Conant if there was any microscopical examination of the shreds made. He thought it important that such examinations should be made to settle the question whether or not

cancer did really exist, and mentioned a case where the question was so decided.

DR. CLARK did not think that the true relations of corroding ulcer have been as yet established; that possibly it might be in closer alliance with other forms of disease than we have heretofore been led to suppose. In connection with this point he referred to a specimen presented by Dr. McCready, some time ago, of ulcerative disease of the rectum extending into the bladder, where the disease communicated with a stricture, which in the course of eighteen months came to be an open ulcer, and continued in that state for six months, until the patient died. When the specimen was examined by the members it was impossible to discover any cancerous matter in the edges of the ulcer, and yet there was present perfectly well-characterized cancer of the liver. In that case the existence of a firm stricture two years before death, the resolution of that stricture by ulceration, the extension of the ulceration into the neighboring parts, and the existence of cancer in the liver, render it highly probable that this differs from the ordinary cancer only from the fact that all the cancerous matter in the primary disease had sloughed away; still the diathesis was present, as was shown by the subsequent appearance of cancer in the liver.

Old Fracture of Femur.—DR. FINNELL presented a specimen of an old fractured femur from a colored woman, who died from sun stroke. There was a riding by of the fragments, the lower fragment being behind the upper one. She fractured the bone some six or eight years ago. The extremity of each fragment has been closed with bony matter; there is a larger quantity of this bony matter posteriorly. The periosteum was continuous across the fracture. No lesion of the brain was discovered. The thigh was shortened two inches.

DR. BATCHELDER asked if all the cases of sun stroke were not in the habit of using ardent spirits?

DR. FINNELL had a case in June, 1849, of a young woman in Mercer Street, who was known to be temperate, and died of sun stroke while working in the yard.

DR. CLARK stated that in nine cases of sun stroke in the kitchen of the St. Nicholas Hotel, it was hardly fair to suppose that they were all intemperate. He presumes, the fact is, under ordinary circumstances when sun stroke occurs, it does fall upon those who do use spirituous liquors more or less freely. The whole class of laborers in New York drink, and it is they who are most exposed to the heat of the sun. It is not the gentleman; he walks with his umbrella over his head, and goes on the shady side of the street. They do not go out

in the middle of the day unless they are compelled. He thought that those who drink hardest fall, but they are not the only ones. He did not think that sun stroke was so dependent upon the absolute temperature, but that, together with a high temperature, there must be a low dew-point. When the humidity of the atmosphere was great the moisture from the body could not be exhaled, as it ought to be. Upon a certain day three or four years ago, when the temperature was only 86° , there was a larger number of cases brought into the New York Hospital than another day when the temperature was 96° . This difference was owing to the fact that upon one day the air was surcharged with moisture, while the other was dry.

DR. SEWALL asked if sun stroke ever occurred in the country?

DR. CLARK remarked that it did.

DR. GRISCOM's observations corresponded to those of Dr. Clark to a certain extent. He did not agree with him in saying, that the laboring classes were for the most part intemperate. He seemed to take an opposite view of the case, yet he acknowledged that the intemperate were mostly stricken. He had two cases at the hospital this year. One was a boy, whom he believed to be entirely temperate; another was a blacksmith, who did drink *a little*, and was struck early in the morning. He thought that the 28th of June was the day for sun strokes, above all others days. His attention, he said, was first drawn to the fact by observing the great number of deaths from heat at the battle of Monmouth, which occurred on this same day of the year, 28th June. This day, according to his account, was the marked one in the calendar. This year there were 50 cases on that day. In 1849, 100 cases occurred.

DR. BIBBINS agreed with Dr. Clark in saying, that the laborers as a class are drunkards. He knew in the 18th and 21st Wards the laborers used ardent spirits almost to a man. The residents of the Wards support the liquor stores, which are in frightful abundance; in the 21st Ward there are one hundred embraced in five blocks. On the 17th August, 1853, when so many died of heat, he was struck with the fact, that he did not enter a house where liquor was not drunk. It was the laborers alone who seemed to suffer directly from the effects of the heat.

DR. FINNELL stated that the decomposition is very rapid in these cases of *coup de soleil*.

DR. HARRIS remarked that there was a very able paper upon the relation of the humidity of the atmosphere to sun stroke, in the *New*

York Journal of Medicine, in the autumn of 1853, by Mr. Bloodgood, of the Smithsonian Institution.

DR. WOODHULL stated that it was a somewhat remarkable fact, that farm laborers do not suffer much from heat; he thought it was owing to the fact that most of them wear green leaves in their hats. This was the case with the laborers in the Central Park, where no case of *coup de soleil* has as yet occurred.

DR. CHURCH stated that the history of most of the cases in 1849, brought into the New York Hospital, showed the bad effects of drinking too much cold water.

Bony tumor from internal condyle of Femur.—DR. VOSS exhibited a tumor from the femur, which he removed from a woman 22 years of age. It seemed before its removal like a crust, and its form was very peculiar, being attached by a sort of pedicle. It is of spongy structure, and over all its prominent portions a bursa mucosa has formed. It was first observed when she was 13 years of age, but still she suffered no inconvenience from it until last year.

Exostotic growth from great toe.—DR. VOSS also presented a small exostotic growth from the last phalanx of the great toe. The reason why it occurs there, said he, is unknown. It always occurs in persons under 30 years of age, most frequently from 14 to 25, and more often in females than in males. This was first described in 1770, by a surgeon in Versailles.

DR. BATCHELDER said that he observed that all exostotic growths in the situation first referred to were pedunculated, that the head of the exostosis extends upwards, and he was inclined to think that the pedunculated extremity was inclined to take the direction in which the muscles acted. This disease was very frequent in the country, the result of the kick of a cow, and is most always on the left thigh—most frequently met with in milkmaids. He did not recollect an instance where it was not caused by a blow inflicted upon that part of the thigh.

DR. PEASLEE never saw a case in a male, but had seen several in females.

Loose bodies from theca of flexor tendons of the middle finger.—These were presented by Dr. Post. The patient from whom they were taken was a woman 60 years old. She had been troubled with the affection for 6 years; at first the swelling was painful; this pain, however, ceased, the swelling still remaining. It extended over the phalanx, then into the palm of the hand, a distance of $2\frac{1}{2}$ to 3 inches. It was opened, and a number

of bodies, similar to those found in the wrist joint, escaped. They extended along the whole length of the swelling. He had never met with a swelling in that situation before. He referred to a case he had many years ago, viz., a bisac in the neighborhood of the wrist joint, which was cured by an injection of tr. iodine. An opening was made above the annular ligament, and it was injected towards the hand.

DR. CONANT saw one case where an opening was made through the annular ligament, which healed by granulations.

DR. PEASLEE stated that, by division of the ligament, the function was generally destroyed. He said they seemed to take their peculiar form from the fact that they were packed so close together. They seemed to be the result of a deposition of the saline ingredients in the secretion itself.

DR. CLARK stated if these bodies be subjected to a careful microscopical examination, they will be found to be made up of an aggregation of epithelium cells. A certain amount of saline material also enters into their composition.

Regular Meeting. Sept. 8, 1858. DR. ELISHA HARRIS, Vice President, in the Chair.

Encephaloid tumor.—DR. FINNELL exhibited several specimens; the first one was a large encephaloid tumor from the axillary region of a horse. It made its appearance a year since; at first increased slowly, but during the last few weeks its growth was very rapid. It had been subjected to different modes of treatment; escharotic applications were made, an opening had also been made in the tumor, and a seton established by means of a rope. All this was productive of no good whatever. There was no inflammation excited by the rope. At the time of removal the tumor had a thick neck hanging down into the axillary region.

Considerable difficulty attended its removal. Chloroform not being administered, the animal as a matter of course was very restless, and considerable time was occupied in the operation. The hæmorrhage was very profuse. Simple dressings were applied some 10 or 12 days after the operation, and the wound was commencing to cicatrize nicely, and there was hope of a good result.

Renal Calculus.—DR. FINNELL'S second specimen consisted of a kidney containing a calculus, removed from a man who died from fracture of the skull, the result of a blow. It was discovered by accident, on laying open the kidney. It has a peculiar shape, resembling one of the bones of the ear. (Malleus.) The process penetrated itself into one side of the pelvis of the kidney, but not in such a

manner as to prevent the free passage of the urine into the ureter. The other kidney was healthy. There was no inflammatory action around the calculus.

Portion of dura mater.—DR. F.'s third specimen was a portion of dura mater, taken from a woman who died from intemperance combined with injuries. The membrane presents rather an unusual form, from the fact of its being stained with blood, without any corresponding extravasation upon the brain substance. He has never met with a similar case before.

The fourth specimen was the vena porta taken from the body of a woman who had a very marked cirrhosis of the liver. There are two little sacculated pouches upon the vessel, that look as if two little pieces of shells were thrust into the membrane. These formations seem to be deposited between the two coats, which appear to be healthy.

The fifth specimen was a *gunshot wound*, taken from the body of a man who died a week ago, in Mulberry Street. The party who fired the shot was standing, as was also the deceased. The ball passed directly through the third rib, close to the margin of the sternum, passing through the aorta, striking the spine, then taking a downward direction, lodged in the psoas muscle of the right side. The wound looked as if two balls were fired; one of the wounds, however, was made by the wad. He thought that the direction that was taken by the ball was quite peculiar.

DR. SCHILLING, in answer to a question by Dr. Clark, proposed at the last meeting, as to whether Jews were ever affected with tænia, stated that it was a mistake to suppose that pork was the only meat that produced them; in proof of which he referred to the fact that the Abyssinians are very frequently affected with the animal, and they never eat pork, but the beef that they eat abound in cystocerci. He saw an instance of a child in this country also, who was fed a year and a half upon raw meat. In this case, a tape worm made its appearance when the child was six years of age. The child had never eaten pork.

DR. HARRIS stated that since the last meeting he had heard of two cases of tænia, in the immediate vicinity of the College, (23d Street.) They were both Americans, and he had no reason to suppose that they were especially carnivorous.

Cent ejected from the Œsophagus.—DR. HARRIS then presented a cent that had been ejected from the Œsophagus of a child, accompanied with the following history:

The child was 3 years old; the cent in question was swallowed by

him on the 22d of June, causing for a moment strong symptoms of strangulation, flushing of the face, &c. For a few days after he seemed to be troubled with slight nausea, and did not eat much, and often complained that "the cent hurt his throat;" but after a week or two he appeared to recover his usual appetite, and almost his usual activity; but in eating the more solid kinds of food, as bread, and especially the crust of bread, he would frequently stop eating suddenly and burst out into a cry of pain, telling us that "the cent hurt his throat." At such times his efforts to swallow were often accompanied by a peculiar noise in the throat. It was his custom, when troubled in this way, to leave the table and lie down on the bed. On the 20th day of August, after thus leaving his dinner and throwing himself on the bed, he vomited violently, and on examination we found the cent, covered on one side with a solid mass of bread adhering tightly to it. The child returned to the table and finished his dinner, and we heard no more complaint of "the cent hurting his throat;" nor did he afterward manifest any difficulty in swallowing. He has since enjoyed his usual health.

DR. HARRIS stated that the cent was evidently lodged below the top of the sternum; he did not wish to use any operative means, partly because he thought it would be ejected, but principally from the fact that the child had a wonderfully marked hæmorrhagic diathesis, and he did not wish to cause any abrasion of the mucous surface.

Anomalous Disease of the Knee-Joint. DR. MARKOE presented the following history of a case of disease of the knee-joint:

C—— T. L——, 49, cashier, was admitted to the N. Y. Hospital, September 16th, 1858. He is a spare, nervous, and rather delicate man, of tolerably regular habits, and has had in early life no severe or seated disease. No tubercle or gout in his family. About 10 years ago had diarrhœa more or less for a year, and began about that time to have pains and stiffness in various parts of the body, increased in severity on the approach of stormy weather. At the same time he observed a slight degree of paralysis, both of motion and sensation, of the lower extremities, so considerable that his legs dragged in walking, and he would frequently stumble and fall. Five years ago he had the little toe of the right foot amputated, on account of caries following the too close paring of a corn. The partial hemiplegia and the wandering pains continued and slowly increased, until about two years ago, when he was sensible of a decided improvement, and soon after he observed some symptoms of urinary derangement, such as too frequent micturition and occasional turbidity of the urine, and for a time a degree of incontinence, which obliged him to wear a bottle.

About the middle of December last, after fatigue and exposure during a storm, he had a rigor followed by slight fever and the swelling of the right knee-joint. This was attended with but little heat and redness or tenderness, but with a great deal of pain of an intermittent character. It impeded the use of the joint so little, that during the whole of the attack he was able to go about with a cane. Some cedema of the leg and foot accompanied the attack. After this period, he noticed that on motion of the joint a grating, or, as he expressed it, a "munching" sound was heard, produced evidently by the rubbing together of altered synovial surfaces. On the 16th of January, as he was stepping from a stage, he felt a crack in the joint, as if something had given away, and immediately the limb became so useless that he had the greatest difficulty in reaching his home. In consequence of this accident, an attack of subacute inflammation of the parts again came on, and he was for a time confined to his bed. This attack soon subsided, leaving the limb free from pain; feet still entirely useless for support or walking. I first saw him about two months after the accident. The limb was then considerably emaciated, and unduly moveable and loose in the region of the knee. This region was irregularly enlarged, which increase in size was due as much to displacement and overlapping, as it were, of the articular extremities, as to enlargement of the bones themselves; which enlargement, however, was evidently to be perceived, and was attended with irregularity of surface, not unlike that which surrounds the joints in some cases of chronic rheumatic arthritis. The displacement was such that the end of the femur was thrown forwards and outward, while the head of the tibia projected backwards and inwards. With this was associated a great degree of relaxation of the ligaments, such that the knee could be bent in almost any direction, and he himself could throw it about in a most extraordinary manner. There was no pain or tenderness of handling or motion. On feeling further, it was discovered that the inner condyle of the femur, embracing a large piece of the bone, was detached from the shaft and moveable upon it. On the outer and anterior aspect of the joint there is another but smaller piece, which appears to be loose, and to move independent of the shaft. No fluctuation, and no thickening of the integuments over joint. The motions all give a rubbing or cracking sound, or rather sensation, but without pain. The whole limb, from the ant. sup. spine to the malleolus, is $1\frac{3}{4}$ inch shortened; while the femur of the diseased side, measured from the trochanter to the outer condyle, is $\frac{3}{4}$ inch longer than on the opposite side.

His general condition is good, pulse 75, tongue clean, digestive system in good order, urine natural, though at times turbid. Some occasional pains in the lumbar regions. The limb is so entirely useless, and he has received so little assistance from apparatus, that at his earnest request it was removed on the 20th September.

On opening the joint, a small quantity of dark, reddish, thin serum flowed out. The general surface of the synovial membrane was more vascular than usual, varying very much in different situations. The membrane itself was very much thickened and opaque, and of a dull yellowish color. In several points thin patches of false membrane were attached more or less strongly to its surface. At other points there were great numbers of small villous-like projections from the surface, some of a larger size being single; others of a smaller size were seen in patches of varying shapes. The projections themselves mostly agreed, in having a base or neck of attachment, somewhat smaller than their free extremity, which gave them, when floated in water, a bulbous or pyriform appearance. Some of the larger of these appendices felt hard, as if they contained the elements of cartilage, which indeed the microscope showed to exist in them, mingled with fibrous tissue. There were no loose bodies found in the joint.

The cartilages of incrustation partook of the dull, opaque, yellowish appearance of the synovial membrane, and were much thinner in many places than they should be. They were entirely absorbed in only two or three patches, where the exposed bone seemed healthy.

The ligaments surrounding the joint were very much relaxed, though thickened, and in several points around the margin of the head of the tibia bony masses had formed in their substance. One of them, of considerable size, seemed in part to be developed in the substance of the semilunar inter-articular cartilage. The crucial ligaments were gone, and the place of their tibial insertion was occupied by a patch of small bulbous villousities. The greater part of the external and the whole of the internal semilunar cartilages was gone, only about one-third of the ring of the external remaining, which was not much altered from its usual appearance, but terminated abruptly, both anteriorly and posteriorly, by being confined in the thickened and villous fibrous folds of the synovial capsule. A separation by fracture was seen to exist of the internal condyle from the shaft of the femur. This fragment was displaced a little upward, and remained connected to its neighboring bone by well-organized fibrous bands, leaving a space between the femur and the fragment of condyle, into which the finger could readily be passed. This space seemed lined by a new synovial

membrane. The laxity of the union permitted very free motion of the fragment, and accounted in a great measure for the looseness in the movements of the joint, and for his entire want of power to support himself on it.

The bones were somewhat enlarged in the neighborhood of the joint, but appeared to be free from any morbid condition. The surface showed some exostotic irregularity, and the periosteum was thickened.

Sacculated Aneurism of the Arch of the Aorta.—Dr. G. BUCK exhibited a specimen of sacculated aneurism of the aorta, causing pressure upon the trachea just above its bifurcation.

Wm. C., æt. 44, a sailor, entered Dr. Bulkley's service of the New York Hospital on the 13th August, in the following condition: face anxious and livid, pulse 132, dyspnœa marked, inspiration short, expiration very much prolonged, no dullness on percussion, no rales, vocal resonance normal, vascular murmur not audible.

The dyspnœa, which constituted the most prominent and distressing symptom, was variable, sometimes almost running into apnœa and again subsiding greatly.

The diagnosis was spasmodic asthma, and the treatment, anti-spasmodics, including large doses of Hoffman's Anodyne, tr. lobelia, tr. bellad., tr. assafœt., and chloroform, the latter by inhalation.

The Hoffman's Anodyne and tr. of lobelia, and the inhalation of chloroform, afforded slight temporary relief.

Six days after admission he had some mild delirium, which continued two days. From the 21st to the 30th inclusive, he had no dyspnœa, and his pulse fell to 93, and his general condition improved.

On the 30th an examination of the chest by Dr. Danach, the resident physician, revealed the facts of uniform resonance, clear respiratory murmur, particularly on right side, bronchial respiration at upper angles of scapulæ, distinct on right side, faint on left, and in front over sternal ends of clavicles amounting almost to pectoriloquy.

On the 4th of September the bad symptoms again returned, and on the 20th, in a paroxysm of dyspnœa, he died.

The autopsy, made three hours after death, showed six fluid ounces of serum on surface and in the ventricles of the brain. The lungs crepitated fully, and were slightly emphysematous.

The heart was normal; but the aorta, as far as examined, presented atheromatous patches, and from the posterior wall of its arch a small false aneurism sprung, which pressed upon the trachea half an inch above its bifurcation. The left pneumogastric nerve was closely related to the tumor.

Regular Meeting, Sept. 22d, 1858. DR. HARRIS, Vice President, in the chair.

Cyst from Neck of the Bladder.—DR. FINNELL exhibited remains of a serous cyst, which grew from the neck of the bladder in a married lady, the mother of four children. It was first discovered in her first labor, and her medical attendant supposed it was a prolapsed bladder. At that time it pushed out from the vagina so as readily to be brought in sight, and as it gave her little or no trouble nothing was done for it. Becoming pregnant a second time, the tumor again made its appearance; this confinement passed off without any trouble, as did also the third and fourth. She had been seen by several gentlemen, who thought it was prolapsus of the bladder. He, Dr. F., was requested to see her a few days after her last delivery. On separating the parts, a large cyst, capable of holding 3vj. of fluid, was brought into view, hanging by a pedicle as large as the little finger. A ligature was applied around its neck, which caused the sac to burst, and the shrivelled mass separated on the eighth day.

Aneurism of the Aorta.—DR. KRAKOWITZER exhibited a specimen, from a man between 40 and 50 years of age. He was healthy until seven years ago, when he had an attack of rheumatism, which was not associated with much febrile action, however. The attack was not even sufficiently severe to oblige him to keep his bed. The pains seemed to be confined to the lower extremities generally, the joints not being involved. Since that time he has been subject to wandering pains, complaining of symptoms, which, in consideration of his previous habits, seemed to be owing to impaired digestion. He was addicted considerably to the use of intoxicating liquors.

It was not observed that his general health began to decline until about ten months ago, when he complained of getting out of breath easily, at the same time suffering from pain in his chest and a short cough. He was a grocer, and followed his business outside and in, until last spring, when he was forced to remain indoors. He continued about his store until two months ago, since which time he was confined to his bed. He was examined twice during the last fortnight of his illness. There seemed to be no marked difference in his physical symptoms at each time he was examined, though the secondary symptoms varied considerably. He was a man of medium stature and muscularity; his skin was quite pale; his face was considerably bloated and somewhat livid, and his eyes had a tendency to protrude from the sockets, with a dull, languid expression. He seemed to favor also a reclining position of the body, experiencing great discomfort in any other position. When he examined him he recognized a small pulsating

tumor, about the size of a walnut, in the space between the second and third ribs on the right of the sternum. The skin covering it had the normal condition. The tumor was elastic, and could easily be diminished by pressure. The impulse over the heart was abnormally extended towards the left; the percussion was dull in a transverse diameter to the extent of four inches, and in a longitudinal diameter to the extent of three inches. The dullness extended to the right as far as the situation of the tumor, and immediately around it; everywhere else the percussion was normal, as also was the respiratory murmur. On the second examination he detected little rales at the top of each lung, and a small amount of bronchial respiration on the right side. The sounds of the heart were normal, and were not strong at the apex. At the base of the lung, along the course of the aorta, there was a blowing sound discovered, which could be heard over the manubrium of the sternum, which was synchronous with the pulsations of the right and left subclavian, right and left carotids, and femoral. The pulsations of the femoral were somewhat weaker than the carotid, while the pulsation of the left subclavian was the strongest. This respiration was of course quick and labored. There was serous effusion in the abdomen, and some swelling around the ankles. The urine was not examined. The medication consisted in following out the indications given by the symptoms. He finally died from exhaustion and suffocation.

The post-mortem was made twenty hours after death. On removing the sternum, at the place where the pulsating tumor could be seen and felt, it was found that an aneurism existed. This was adherent to the intercostal space between the second and third ribs, the muscular tissue at that spot being considerably thickened. The lungs were free from any organic disease, except two small spots of tuberculous deposit in the apex of each. These organs were filled throughout with a great quantity of serum. There was a little effusion in both pleural cavities. The heart laid in a transverse position, almost exactly in a horizontal line; the base being to the right and apex to the left. It was hypertrophied to twice its ordinary size; this was mainly due to the hypertrophy and dilatation of left ventricle, the right ventricle being very little affected. The mitral valve, with the exception of its being thickened at some parts of its margin, was normal and sufficient. The tricuspid, with the exception of its being a little thickened, was also normal and sufficient. The aorta at its origin, as is here seen, swells out into an immense sac, which can be easily filled by the two fists; gradually tapering down until it becomes thoracic; then the artery resumes its natural calibre. The origins of the inno-

minata, left carotid, and subclavian are distinctly seen. The origin of the left subclavian seems somewhat enlarged, which accounts for the stronger impulse which it had. The inner coat of the aneurism presents the usual appearance; the aneurism must have existed a great while, considering its size. There is a small amount of atheromatous deposit between the inner and middle coats of the artery. There can be seen a little sacculated protrusion from the aneurism, corresponding in size and situation to the tumor felt protruding between the second and third ribs. The abdominal organs were not examined.

Regular meeting, Oct. 13, 1858. ELISHA HARRIS, M.D., Vice President, in the chair.

Case of Traumatic Tetanus.—DR. JAMES R. WOOD exhibited the brain and spinal cord of a patient who died of traumatic tetanus.

The patient from whom this specimen was taken was a lad fifteen years of age, who entered the hospital last Thursday. The history which he gave was as follows: About seventeen days previous to his entering the hospital, he injured the little and ring fingers of left hand; the fingers were removed shortly afterwards. At the time he was received into the hospital he had the symptoms of tetanus. There was stiffness of the extensor muscles of the neck; more or less dysphagia; there was also a good deal of trismus, which was not, however, so marked as the other two symptoms. He was placed under treatment at once. The treatment was that pursued by some of our oldest and most experienced practitioners, viz., opium and whiskey. He took about 80 ounces of this liquor from the time he entered the hospital, on Thursday, until he died, on Sunday evening. During all this time he was kept fully narcotized, having taken about a 3j. of morphine. The respiration at one time was down to eight per minute. The symptoms abating on Saturday, two days after entering the hospital, the opium and alcohol was diminished in quantity, so that the respirations at the time of his death were about twenty-eight per minute; but his pulse was quick, and very different from the pulse of a patient who is much under the influence of opium. The spasms ceased on Saturday, as did all the tetanic symptoms, and he seemed to die of pure exhaustion. He died comatose, on Sunday, without a rigid muscle and without a struggle. This case illustrates what has been frequently contended for here, that if a patient could be kept alive long enough to wear out the disease, being supported at the same time, that he might, in many cases, be saved. If this boy had enough vitality left after the disease had exhausted itself, he would, in all probability, recover. Such, however, was not the case.

We have here the spine, brain, and a portion of the spinal column. Examining the specimen carefully before the Society, he could not detect any trace of disease, either in the brain or spinal cord; every part seemed to be in a healthy condition, with the exception of a small quantity of coagulated blood outside the capsule of the cord, which he thought was due to the preparation of the parts.

Many of the members had met with similar cases, where there were no post-mortem changes; still that was no reason to him why they should not continue their investigations until they should at length be rewarded with success.

DR. SEWALL had treated four cases of tetanus: two were traumatic and two idiopathic. The two that were idiopathic recovered. They occurred in boys. One of these cases lasted some three or four weeks, and the severity of the symptoms was apparently as great as in the two traumatic cases, which died.

DR. MCCREADY asked if it was not a rule that, when a case lasted over four or five days, recovery was pretty apt to take place, while the fatal cases generally terminated before that time.

DR. WOOD thought that was the case.

DR. MARKOE stated that he did not have much experience in idiopathic tetanus. One of the worst cases of tetanus (traumatic) that he had ever seen was in a patient who had been severely burned upon the foot by treading upon some lime; four weeks after tetanic symptoms came on, and terminated fatally. He could call to mind several cases where tetanus had occurred without any recent injury. He had noticed that they very frequently came from burns.

The discussion was continued, and reference was made to the frequent occurrence of tetanus (idiopathic) in some localities, as the eastern portion of Long Island.

Enlarged Thyroid Body.—DR. CONANT presented an enlarged thyroid body, taken from a patient 35 years of age, with the following history:

Mrs. J. O'H. first discovered an enlargement of the left lobe of the thyroid body some eighteen months since. At first it gave her very little trouble, but in a few months it began to enlarge so rapidly that she applied to a physician for advice. January 3d, 1858, Dr. C. first saw it, at which time the left lobe and isthmus seemed to be affected. The tumor was about the size of a large flattened orange, projecting very considerably in front. The patient's general health was good.

Dr. C. did not see the patient again until Saturday, October 2d, when the tumor was considerably flattened, and extended back upon

the left side as far as the border of the trapezius muscle, and deep into the neck as far as the transverse processes of the cervical vertebræ, downwards to the under side of the left clavicle, and upwards beneath the border of the inferior maxillary bone. The trachea was crowded to the right, as ascertained by auscultation, so that it was partly under the border of the sterno-cleido mastoid muscle. The tumor was hard and nodulated upon its entire surface, and so interfered with inspiration that the patient seemed in danger of fatal suffocation at any moment. Dr. C. proposed tracheotomy as the only present relief. After due consideration it was decided that the attempt should be made early the next morning, (Sunday,) when at eleven o'clock Dr. C. visited the patient, prepared to operate. The patient had suffered slightly less than the night previous, and was anxious for the operation to be done.

She was placed in a chair, and chloroform administered, there being present Dr. Bassett, Messrs. Holmes, Stangenwald, Wyre and Roberts, who were medical students. On account of the imperfect inspiration, it was some thirty minutes before she was completely under the influence of the anæsthetic, and about fifteen drachms of chloroform were used. The incision was made along the anterior border of the right sterno-cleido mastoid muscle down to its sternal origin. The external veins were all very much enlarged, and the venous hæmorrhage was quite free. The tumor was found to extend over the entire trachea, and at this point was near an inch thick, and so exceedingly vascular as to bleed profusely upon the slightest laceration. The dissection was carried down until the finger could detect the pulsations of the innominate. Fearing fatal hæmorrhage if the tumor should be cut through, it was deemed advisable to close the wound, which was accordingly done. Here, again, was found the labored inspiration interfering with the restoration of the patient from the effects of the anæsthetic; so that for more than sixty minutes the life of the patient seemed to hang upon a thread. After the effect of the chloroform had passed, she remained as comfortable as before, until the following Wednesday, when, in the afternoon, she began to sink, and died at ten in the evening, without a struggle, going apparently into a quiet sleep.

By her own request, previously expressed, Dr. C. removed the diseased mass, weighing one and a quarter pounds. On examination, it was found that only the left lobe and isthmus of the thyroid body were affected. The thyroid cartilages were flattened and distorted; the trachea flattened, and the septum, between it and the œsophagus, is

made nearly an inch thick, by deposit in its areola tissue pressing far into the posterior wall of the trachea. Two or three grape-like projections were found just above the rima glottidis, which were somewhat ulcerated. The carotid artery, jugular vein, and pneumogastric nerve were entirely enveloped by the mass; and the vein was so filled and distended by the organized material, as to be rendered entirely impervious to the circulating blood. The sterno-cleido mastoid of the left side is so changed when it is in contact with the tumor, as to be with difficulty distinguished from the remainder of the mass. A portion of omo-hyoid, sterno-hyoid, sterno-thyroid, thyro-hyoid, and some of the elevators of the larynx were in the same condition.

Dr. C. has little doubt of the cancerous nature of the disease, though he has had no opportunity to make a microscopic examination of the tumor.

Dr. WOOD remarked that the removal of this body (thyroid) is uniformly attended with fatal hæmorrhage. He referred to one case of a removal of this body by Dr. Mott. Before he cut the tumor away, he ligated it by a needle armed with four ligatures, so that each thyroid artery was secured as they approached the body. The patient lived a week and died of hæmorrhage, one of the ligatures slipping off one of the arteries.

He referred to another case, occurring in the practice of Dr. Wm. Anderson, who cut directly into the tumor, and the patient died upon the table. He knew of several similar results occurring in the practice of other gentlemen.

He did not think this body could be cut into with safety, unless in scirrhus disease of the organ.

Dr. MARKOE remarked that the operation for the removal of this body had been performed successfully by the German surgeons. He knew of six or eight being reported.

REVIEWS AND BIBLIOGRAPHY.

Lectures on the Principles and Practices of Physic. By THOMAS WATSON, M.D. With additions, by D. FRANCIS CONDIE, M.D. Philadelphia: Blanchard & Lea. 1858.

We remember, when a student of medicine in our first year, we borrowed from our venerated preceptor a copy of Watson's Practice,

the second edition. We were but poorly instructed in anatomy and physiology, and knew little or nothing of the multiform agents of the *materia medica*. Nevertheless we read on, fascinated with our author and his subject, and not the *Arabian Nights* or *Robinson Crusoe* had so captivated our youthful mind as did these lectures on the science of disease and its movements. This book was the most thumbed, the most studied, the favorite during our pupilage, and for a year or two after. Since then we have read many other systematic treatises on disease, but none with the same pleasure with which we used to pore over this volume. And, indeed, we can think of no other medical writer (unless, perhaps, we except Mr. Paget and Dr. Latham) whose style is uniformly so clear and captivating, and whose mode of teaching is so admirable, as is that of Dr. Watson.

The volume before us is the "new American, from the last revised" or fourth London edition. Since the publication of the first, fifteen years ago, the science of medicine, as every one knows, has made great strides. The students of the microscope and analytical chemistry, of botany and pharmacy, have been zealously at work, and their labors have almost revolutionized the practice of physic, and in many respects its theory too. But Dr. Watson has availed himself of the researches of these workers, and made the present edition a transcript of the knowledge of the times. In his lectures on Inflammation we are given the result of the studies of Messrs. Wharton Jones, Simon and Paget; while in relation to its treatment in past times and of late by blood-letting, he gives in a long foot-note the points of discussion and variance which have appeared in the journals during the last year or two, and, as we think, puts the whole question at rest, when he says, "I am firmly persuaded, by my own observation and by the records of medicine, that there are waves of time through which the sthenic and asthenic characters of disease prevail in succession; and that we are at present living amid one of its adynamic phases."

On the subject of Continued Fevers, our author makes use of the able and instructive writings of Dr. William Jenner, of London, and of our own countryman, the late Dr. Elisha Bartlett. The views of the former, as to the distinctive features of typhus and typhoid fever, are fully embraced, and the differential diagnosis clearly shown and elucidated.

In the lectures on Diseases of the Kidneys, we are furnished with a resume of the labors of Sir Benjamin Brodie, Bence Jones, and of Drs. Owen Rees, and Golding Bird. The subject of Bright's Disease and albuminous urine is fully treated, with the new facts in relation to it;

and about half a lecture is devoted to a consideration of the new "Addison's Disease" of the supra-renal capsules. In the lecture on Diabetes the student is shown how to manipulate by *Moore's* and *Trommer's* test for sugar.

In fact we are led to wonder, as we turn over the pages of this new volume, how Dr. W., amid the many duties of a large professional business, has found time to read the many valuable monographs, reviews and fugitive articles which have appeared from the medical press during the last ten or twelve years. It is a proof alike of his industry and of his conscientious and sincere regard for the profession of which he is so distinguished a member and teacher.

On the whole, we regard *Watson's Practice of Physic*, as we have always regarded it, as the best systematic treatise extant on the subject of general medical pathology and therapeutics; the best for the student, because it cannot fail to inspire him with love and enthusiasm for the study of disease, and the best for the practitioner, because a perusal of its pages will serve to rekindle that enthusiasm, and because its teachings are so eminently practical and trustworthy.

The edition before us is interspersed with some very good, and a great many very bad wood cuts, illustrative of the text, and borrowed from Williams, Paget, Hughes Bennett, Gross, and others; and, like the former American republications of this work, the present is edited by Dr. Condie, of Philadelphia. We presume it has been the aim of the editor to bring this edition fully up to the times. But we are unwilling to thank him for his pains. He has succeeded very materially in increasing the bulk and clumsiness of the volume, without adding to its intrinsic value. We have a long note on Yellow Fever, another on Bilious Remittent Fever, and still another on Cholera Infantum, either of which we regard as out of place in this book. The American student would naturally look at home for the necessary knowledge on home diseases. And this leads us to say, that we hope the time is not far distant when physicians in this country will no longer consent to place their names on the title-pages of English books, except under very peculiar circumstances. In most cases it is an impertinence and a contemptible way of gaining notoriety by means of the labors of other men. In conclusion, we hope that when the next edition of *Watson's Practice* is called for, Messrs. Blanchard & Lea will issue it in two volumes. The additional expense would be trifling compared with the great advantage the student would gain in reading a more easily managed and portable volume.

V.

Proceedings of the American Pharmaceutical Association at the Seventh Annual Meeting held in Washington, D. C., September, 1858.
Philadelphia: Merrihew & Thompson, Printers. 1858. Pp. 488.

This is a publication which entitles the Association, under whose auspices it is published, to much credit for the material contained, the style of publication, and the promptness with which it has been presented to the country. It would be well if the Committee of publication of the American Medical Association would imitate their brethren of the pharmaceutical profession, in their promptness. Here we have a respectable sized octavo volume furnished the members within three months of the date of the meeting of the Association, while our medical Committee has *not yet* published the proceedings of our May meeting. As almost the entire value of transactions of associations depends upon their being spread before the public before their facts and discoveries have grown stale, it is in reality a great annoyance to be deprived of their freshness by delays in their passage through the press. Is there no way of remedying this evil?

On a hasty examination of this volume, we are strongly impressed with the indications it affords of the existence of a spirit of investigation among the pharmaceutists of our country. They are no longer willing to be mere vendors of drugs, which they only know by name, and whose adulterations they have not sufficient knowledge to detect; they are looking upon their profession as one which demands quite an extensive knowledge of Natural History, Botany, and Chemistry, in addition to an acquaintance with manipulation; they are striving to make themselves true aids to medical men, without wishing to interfere in the proper sphere of the latter. Such honest efforts have given rise to the formation of the American Pharmaceutical Association, whose objects are declared by the Constitution to be: The improvement of the drug market, the establishment of proper relations between druggists, pharmaceutists, physicians, and the people, the improvement of the science and art of pharmacy, the regulation of the apprentice system, and the suppression of empiricism. We congratulate the Association on the progress thus far made in their good work, and suggest to our medical brethren that it is time to take care lest, on those subjects which are common to both pharmacy and medicine, they may have their deficiencies brought out with the fullest glare of light by a contrast with the progress and improvement of the pharmaceutists of their vicinage.

Ignorance of medical chemistry is deplorable in a physician, but ignorance of *materia medica* is something that has been tolerated too

long by the community. We complain if an apothecary's clerk puts up a *wrong* article in a prescription, and we insist, with all the vehement eloquence that we can command, on the State alone having the right to issue permits for the practice of pharmacy, on a thorough examination. And it is right that all the education, that may be necessary to make a man an intelligent dispenser of drugs, should be required. But, on the other hand, is it not as imperative a duty that physicians should be at least acquainted with the proper names of the medicine they prescribe; and how can we expect that the medicines intended will be procured, unless the apothecary is furnished with the *official* names which the U. S. Pharmacopœia recognizes as authorization? *Hydrargyri chloridum mite* is written calomel, protochloride of mercury, or called a muriate and sub. muriate, *at the whim* of the prescriber, and these arbitrary names are translated into a species of Latin of the most ungrammatical character. The same free style of treatment is adopted with all the agents in the materia medica. But while condemning such carelessness in physicians, and placing full confidence in the statement that "the files of physicians' prescriptions now present a sad complication of ignorance, carelessness, and even recklessness, in all the forms of bad Latin, bad spelling, &c.," and being disposed to favor the adoption of any rule to ensure a removal of this opprobrium, we are sure that the members of the Association cannot approve of some of the thoughts in the essay on "Professional intercourse between the Apothecary and Physician!" Think of the suggestion that apothecaries are *bound* to give their opinion as to the professional qualifications of physicians when asked by their customers, and that "it cannot be expected that apothecaries should relinquish by far the greater and most remunerative part of their business, that is, the sale of nostrums, &c. &c., to accommodate the mere whims of the medical profession;" basing the opinion that if all the duties of the pharmaceutic profession are performed unexceptionably toward the medical fraternity, the practitioner of the former may follow "the established principles of trade, and pay close attention to the channel into which it flows, and which pays *the best remuneration*." We like not quackery, and we are satisfied that the words just quoted will not find echo in the hearts of those who laid down, as one of the objects of this Association, the suppression of empiricism. With the system of ethics involved in this essay we can have no sympathy. It is as bad as that of the formalist, who hopes, by accomplishing certain duties, to have the right of acting *in general* as he pleases. Quackery

in both professions must be put down *by uncompromising opposition*, and not by a system of compromises.

The *Report of the Progress of Pharmacy*, by F. Stearns, of Detroit, consists of a resume of important additions made to the art and science during the past year. The *syllabus of a course of study* has been prepared, with the view of meeting the wants of such apprentices as are not able to avail themselves of regular instruction, under the supervision of Prof. W. Procter, of Philadelphia. We are, on the whole, very much pleased with this syllabus, which will be found very useful for this class of students; but an examination of it only makes us anxious for the appearance of a larger treatise, covering the whole subject, from the pen of the same able pharmacist.

The *Report on the Revision of the Pharmacopœia* contains the opinions and suggestions of the Committee as to such alterations as the next decennial convention may be called upon to make, in the preparations hitherto, or that may then be hereafter determined to be official. Among these suggestions we notice the deserved prominence given to the process of displacement, which is also very handsomely treated in a separate article by Prof. Grahame.

The *Medicinal Plants of Michigan*, and the *Peppermint Plantations of Michigan*, are two papers which are very lucid, and exhibit the painstaking character of their author, Mr. Stearns, of Detroit. One of the most valuable, if not the most valuable paper in the volume, is by Dr. Squibb, of New York, and is entitled, "*Notes and Suggestions upon some of the Processes of the U. S. Pharmacopœia.*" It exhibits the results of thorough acquaintance with theory as well as the practical details of preparation. Dr. S. gives such alterations in the directions for the preparations as his experience has suggested. We regret that we have not room to notice some of these. A simple test, which he suggests, of the presence of adulterations in nitrate of silver is worthy of notice, as being useful to the physician as well as to the apothecary. "A small fragment of nitrate of silver, crushed to powder with a knife blade, upon a piece of paper, the powder spread out over the paper, and the paper and powder then rolled up into a match-like roll, twisted, set on fire and burned, leaves a tasteless residue of pure silver. But if the nitrate contains even one per cent. of any saline impurity, the residue, instead of being tasteless, will have the sharp alkaline taste of the base of the adulterating salts."

Physicians will find this volume an interesting addition to their libraries, that will more than repay them for the price (\$4.00) at which it is published.

L. H. S.

The Institutes of Medicine. By MARTYN PAINE, A.M., M.D., LL.D., Professor of the Institutes of Medicine and Materia Medica in the University of the City of New York, &c., &c. New York: Harper & Brothers, pp. 1095

There is nothing of indistinctness in the doctrines taught by Dr. Paine. He knows what his opinions are, and why he holds them, and we thoroughly relish and enjoy the quiet confidence with which he maintains them, though evidently aware that, as to numbers, the majority are against him. Chemical physiology and humoralism he holds in supreme contempt, and declares constant, perpetual, active war against them. Hear his first sentence: "Solidism and vitalism will form the basis of these Institutes." It seems as if a full-armed knight had stepped into the arena before us, and thrown down his gauntlet to all his enemies. We see the glistening of his armor, his waving plume, his firm, but elastic tread, and his good lance and sword. We admire him, though we are not of his party, and hope to try a joust with him yet. Meantime, if some one will help us down from our horse, we will say in less figurative language, that we hope to be able before a long time to examine Dr. Paine's doctrines at some length, important as these subjects are in a practical view. The book will be a useful one for persons who think for themselves, for it is eminently suggestive, even to those who differ from the author. With this brief notice, we must say *au revoir*. P.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume IV. Bronson—Chartres. New York: D. Appleton & Co., 1858, pp. 766.

The appearance of each new volume of this Cyclopædia makes us more and more anxious for the appearance of the last, so that we can have the benefit of the full set for our daily reference. All the old encyclopædias have become too old for the use of this active, thriving, and advancing age, and the American effort in this department is prized, as it contains the modern discoveries that have elucidated many subjects, which are either unnoticed or indifferently noticed in its predecessors. In looking over the present volume somewhat hurriedly, we are pleased with its general accuracy in matters connected with science and medicine. Errors there are, (and it would be impossible to avoid some,) which should not have appeared upon its pages. For

instance, in the article on *charcoal* the writer seems to be ignorant of the late investigations of Dr. Stenhouse. He speaks of "the *antiseptic* properties of charcoal making it a valuable material for preserving meats on long voyages, by burying them in it in close vessels." Dr. S. has clearly shown that charcoal has *no* antiseptic properties, despite the authority of all the text-books to the contrary. Indeed meat *will* decay much more rapidly in it, under equal temperatures, than in the open air; but, in consequence of the deodorizing properties of the charcoal, no offensive odors are given off. If we accept the *nose* as the *only* test for putrefaction, then charcoal is an antiseptic; but if we judge of this process by the loss of weight undergone, we shall find charcoal has no claim to the title.

We regret in the notice of the *cæsarean section* that our countryman Prof. Gibson has not been named. His case of double cæsarean section in the same woman, where the lives of the mother and two children were saved, is one of the most wonderful on record, and certainly deserved a place in an article on the subject in an American book, where the operation is noticed.

In the preparation of the succeeding volumes additional pains should be taken to prevent even slight errors, so as to make the *Cyclopædia* in every respect fitted to be our national book of reference—a position it must occupy in our literature.

L. H. S.

The Uræmic Convulsions of Pregnancy, Parturition, and Childbed.
By DR. CARL R. BRAUN, Professor of Midwifery, Vienna. Translated from the German, with notes, by J. Matthews Duncan, F. R. C. P. E., etc. New York: S. S. & W. Wood, pp. 182.

This little book consists, in fact, of a single chapter of a new work in Midwifery by Dr. Braun, and has already been published in the *Edinburgh Medical Journal*. It is, however, worthy of the distinct form which it has received. It is an exceedingly technical and learned, but valuable essay upon this important subject. Its value is increased by Dr. Duncan's notes, the whole making a book which ought to be read by every practitioner who accepts calls in midwifery. P.

The Reprints of the British Reviews and Blackwood's Magazine.
Leonard Scott & Co.

Respected reader, have you not frequently, during the year past, sighed for some publication which you could take up with interest dur-

ing your moments of rest, which would be at the same time well written, interesting and valuable, while it had not the formality of history or flippancy of novels, and refreshed your mind by turning your thoughts away from professional subjects? If so, send for Leonard Scott & Co.'s reprints, (ten dollars will buy the whole,) and at the end of the year you will thank us for the suggestion. You need have no conscientious scruples about copyright, for they pay a large sum (more than 3,000 dollars annually) to the English publishers. You will find a large fund of information in them, many exceedingly well written essays, worthy not only of perusal, but study; and throughout the whole an air of elegant scholarship that will not only delight you, but exert an elevating influence upon your own habits of thought.

EDITORIAL AND MISCELLANEOUS.

—The congratulations, good wishes, and pleasant words which are appropriate to the commencement of the year, we offer to our readers.

Were we poets, perhaps we should inflict upon our readers some rhymes; but the poet was neither *born* nor *made* in us, and, therefore, we cannot claim, under the ruling of Horace, any right to try the measured composition.

Were we priests we might spread before our friends a sermon, moralizing upon the vanities of life and the little hold which mortal man has upon it. But we are not of the sacred office; and assuredly physicians, least of all people, need to be reminded how like the grass is all flesh. "In the morning it is green, and groweth up; but in the evening it is cut down, dried up and withered." This becomes a literal truth to those who are so frequently called upon to witness the sudden vanishing of lives full of value to their friends and to their country, and the equally sudden disappearance of those to whom life is just commencing, and who are surrounded only by the tendrils of a mother's affection.

But if neither priests nor poets, we are editors, and may be allowed, as such, to speak of our work, at least to our usual readers.

There has been, during the past year, no lack of work to us. When, a year since, the whole country and all its business was staggering

under the fearful blow which its financial relations had received, instead of doing as many of our exchanges did, take in our sail, by diminishing the number of our pages or increasing our price, we boldly *increased* the size of our publication, allowing the price to remain the same. This we did without wealthy friends to back us, unsupported by any partizan interests, and fully aware that we could not go to any of the profession with solicitations for pecuniary aid in our enterprise; and the result has justified our course. Never before has the MONTHLY had so large a list of subscribers as now; never so large a number of advertisers. Our pages have been well filled with articles from all parts of the profession. No animosity, no bitterness has disfigured its pages. Of the course of affairs abroad we have kept our readers informed, and that by direct application to the sources of information, not taking our news at second-hand. In short, we have made every exertion to give to our subscribers a publication of interest and of permanent value.

Few of our readers have any idea of the amount of labor which is required to do all this. The accumulation of exchanges alone is enormous, and it requires great diligence to select the best articles for reprinting; to collect original papers of value; to select from the proceedings of societies the most interesting portions; to prepare reviews and book notices; to write editorials at the proper time, on the proper subject, and in the proper way; each and all of these require labor, which is not the less wearying that it is no sooner completed than it must be again resumed. The proof-reading alone becomes a very great task, as one can judge from the fact that each page is read carefully at least three times before it is printed; and, notwithstanding this, errors will sometimes creep in.

Let it be observed, that we do not mention these things as whining over our task, but because we wish also to suggest to those of our subscribers who are in arrears to us, that something is due on their part, and *that* something is—*money*. Our payments are to be met in money promptly and regularly, and we have a right to ask our subscribers to do likewise. To those who are indebted to us, their bills have been sent, and we think we have a right to ask attention to them. Our terms are *advance* payment; but we have yielded so far to the custom of other journals, as to allow many subscriptions to run on when those terms have not been complied with; but we feel that we have a right to ask that our good nature shall no longer be imposed upon. If our subscribers who have lately received their accounts, will send us the amount, with three dollars additional for the

ensuing year, we will promise not to dun them till at least twelve months have passed. Come, gentlemen, we have trusted you one or two years; it is no more than fair that you should now trust us one, by advancing the amount for this year.

In what we have thus said, *de pecuniis*, we would on no account be understood to be unwilling to receive from our friends the names of new subscribers, with the money in advance; our hearts, our pockets, and our lists are open for all new comers—especially with the money before them; and, therefore, if any one from Maine to California, from Georgia to Kansas, desires to make us a new year's present of *three dollars* and a new subscriber's name, we will at once gladly acknowledge the same on a piece of paper, elaborately printed for that very purpose, and with our own autograph appended.

—The punishment of criminals is a subject of great interest to every thinking person, but one that is beset with very great difficulties. To punish on the one hand sufficiently, and on the other not excessively; to benefit the culprit as well as the community; really to reform the sinner, and not to make him a consummate hypocrite, are objects to be constantly kept in mind, and which cannot be all wrought out without many trials, and the correction of errors when observed, in the practical application of theories. To devise punishments is easy; but it is not so easy to devise proper punishments. Almost any man can invent ways and means of torturing his fellow man; but few can do so with good judgment and discretion. The inquisitorial tortures were ingeniously arranged, and with great care, so that their effect upon the life of the individual could be foretold by the practiced operator with the greatest exactness. From the cracking of a thumb joint to putting on the stretch every sinew and ligament of the body, could be exquisitely done; while the endurance of the prisoner could be so exactly estimated, that, if desirable, he could be carried to the gate of death and then be returned to life again with the utmost precision. Few would suggest that a return should be made to the methods of the inquisition, and yet we apprehend that racks, thumb screws, and other such appliances were not worse than many of the punishments which are inflicted in our state prisons.

The one which we now have particularly in mind is that of showering, which we have considered as barbarous torture and most dangerous to life, since we had occasion, several years ago, to examine its methods and its results. A recent fatal result from it, at the prison at Auburn, recalls these impressions to our mind. The following account of it we clip from the *Times* :

The Auburn Advertiser publishes the testimony taken at the coroner's inquest on the body of Samuel Moore, the convict who died recently in Auburn State Prison, while undergoing the punishment of the shower bath. John T. Baker, a keeper in the prison, testified that Moore was kept in the shower bath from half to three-quarters of an hour. Dr. Chas. A. Van Anden, physician at the prison, testified that, in his opinion, Moore could stand three barrels of water, properly administered, without producing death; and that he had seen three barrels administered, but thought that the death of Moore was produced by showering. The jury returned a verdict that "Samuel Moore came to his death in the State Prison at Auburn, on the second day of December, 1858, from a cause which we are unable to determine positively; yet we believe, from the evidence, that it was hastened by the punishment which had been inflicted upon him. But we *have no reason to believe that said punishment was unusual in such cases, or that any of the officers of said prison were at fault in the matter.*" The Advertiser, in commenting on the case, says:

"The evidence, as to the amount of water that was let upon the convict, cannot be implicitly relied upon, from the fact that there were no means of ascertaining the precise quantity. The water is usually measured, so that the quantity applied may be positively known; but in this case it seems that the pump was put in motion to fill the barrel, while at the same time the water was let out upon the convict. In other words, the water was showered on the convict as fast as it was pumped into the barrel over his head. It also appears, by the evidence, that the pump was used until broken, and after that the water was dipped from the reservoir in pails, the water being almost at the freezing point. Taking the evidence as it stands, with the knowledge that almost the whole of it is from persons who would not certainly exaggerate the punishment, it must be admitted that the convict was showered to death. He went into the stocks a healthy, robust man, and came out, to all intents and purposes, *dead!*"

There are several ways of using water for a punishment, though they may be resolved into two by the similarity of their general principles. One of these is by allowing a large body of water, usually at least a barrel full, to fall suddenly and at once upon the prisoner, to be repeated again and again if the authorities of the prison deem it necessary. The other method is to allow a continuous stream of water, often of small dimensions, to strike the prisoner, who, in either method, is bound so that he cannot escape, and usually cannot move either hand or foot. Thus we have seen a man wrapped in a stout blanket and laid upon his back, being held in this position by attendants, while a stream of water from an ordinary garden watering-pot, without the rose, was allowed to fall about six feet, striking him in the same spot upon the middle of the forehead. This seems a very simple thing, and yet it will make the stoutest man beg as for his life in a

few seconds. Why—one can tell by trying it himself—when he will at the same time learn the meaning of the word torture. And yet this is the mildest, gentlest, and safest way of using water as a means of punishment.

That adopted at Auburn is the worst and most dangerous method, unfit to be practised in any christian community. It has repeatedly resulted as it did in this case, when administered carefully, and not with that recklessness or cruelty which marked the treatment of Moore. We could *almost* wish, that whoever administered the water, or superintended the administration of it, might have to try precisely the same treatment on himself; but we cannot find it in our heart to wish him quite so severely punished; we only wish that some Spanish inquisition could stretch him on the rack for a while.

As the jury felt that they were authorized to say in their verdict, that they “have no reason to believe that said punishment was unusual in such cases,” and could find it in their hearts to deny “that any of the officers of said prison were at fault in the matter,” we should at once mention their vicinity as a most desirable field for any one who wished to go on a mission to teach the principles of humanity to his fellow men. A better field this than Borioboola Gha.

We have no mawkish sentimentalism, which leads us to object to the punishment of criminals for petty offences committed in the prisons to which their great crimes have made it necessary to confine them; but they have a right to demand that their punishments shall not be more cruel than those which Alva used three centuries ago.

Let this disgrace to our age be at once abolished.

— At the Meeting of the Academy of Medicine, held Dec. 1, DR. SAMUEL ROTTON read a minority report “on Fluid Extracts.” A portion of this report will be found in the MONTHLY for March, 1858. The present paper was a continuation of the experiments, by which the reporter showed that the Fluid Extracts, as now prepared, cannot be relied upon for uniformity of strength; that they are liable to destructive alteration, and that each parcel must be separately tested for its own therapeutic powers, rendering them consequently almost useless to the practitioner. The report was accompanied with drawings of *torulæ*, the result of decomposition of the specimens examined, found upon microscopical examination.

MR. GROUX was present at both meetings in December, and afforded the members an opportunity to witness the singular conformation of the sternum, of which he furnishes an almost unique example. With his usual courtesy and patience, he labored hard to exhibit, and ex-

plain to all, the various experiments by which the motions and sounds of his heart and lungs are illustrated. In our last issue we gave at length the peculiarities of this case, and cited the opinions of many of the leading physiologists and anatomists of Europe. In the present number will be found the Report of the Committee of the N. Y. Pathological Society. At the Academy the subject was referred to the Section on Anatomy.

DR. J. W. CORSON read a paper "On the Management of the Shoulders in Examinations of the Chest," at the session of Dec. 1. At the subsequent meeting in December (11), the reading of this paper was continued, and several patients were brought before the Academy, and examined, to illustrate his views.

In this paper Dr. Corson announced two or three new physical signs. His theory was to make two levers and hooks of the arms and hands, shift the thick shoulder blades, *thin* the muscles before and behind, get nearer the lungs, and thus to hear better the sounds. He had given this a fair trial. These various plans he presented had been used successfully in some hundreds of cases in the dispensaries and in private, during the past year. The paper was illustrated by several large drawings.

There was an easy test of the principle involved. It was to place one forearm of a healthy muscular man behind his loins, while the other arm hung down loosely by the side. On carefully listening, and especially on percussing, below the clavicle or over the stretched pectoral of the retracted side, it would be found that the sounds were sensibly clearer, as compared with those of the front of the opposite lung.

To throw back the shoulders and bare the whole front, we needed the "first position." It was merely to hold the left wrist with the right hand behind the loins. This had many little advantages in blind cases: it gave symmetry, got rid of the arms, and fitted the coat or flesh closely for inspection, and tightened the muscles like a drumhead for delicate percussion. The "second position" was stated to be the common one of locking the hands over the head to examine the axillæ. The "third" crossed the arms at the back of the head, with the hands grasping near the elbows, so as to *hoist* the shoulder blades high up, and search for obscure pleurisy or pneumonia low down posteriorly.

It was very important in suspicious cases of cough to examine carefully the *top of the lungs behind*. For without any distinct signs in front, consumption—often mistaken for a mere throat affection—began here. A few scattered tubercles were apt to burrow beneath

the top of the shoulder. Here we needed the "fourth position." For this the patient crossed arms in front, slightly stooping, hooked the hands at the loins below the ribs, and then stretched upward to increase the tension, while the physician helped by pushing down the shoulders to the utmost behind. They were thus slid off, the muscles smoothed down, and the ear came closer upon the summit of the lung and heard better the sounds.

But, as worth more than all the rest, Dr. C. commended the "fifth position;" for, by natural machinery, it wrenched the shoulders forward out of their beds, widely severed them in the rear, often stretched out their muscles here like stout cloth, and thus quite uncovered the inner and upper part of the lungs behind. To accomplish this, the patient crossed his arms in front, with the stronger outside, grasped his shoulder-joints, pulled both strongly, and held fast, while the physician aided at the back by pushing as before. Even in health the breathing sound here could often be thus nearly doubled. He enumerated many delicate signs of consumption, pleurisy and pneumonia that could thus be brought out, and among the rest a new one like breathing through a layer of wet sponge, heard after or before the mucous rales of bronchitis, which he would name *moist respiration*.

He had, also, an interesting and really useful physical sign to communicate, which had hitherto escaped notice. It was comparative *stiffness* in the motion of the shoulder over the lung most diseased, on strong breathing as watched carefully from behind. For this he gave the "sixth position." It was to face the back of the patient a yard distant, near a window or white wall, and let him drop his arms, "as if dead," by his side, and breathe deeply, "like a man a little out of breath." The physician first "takes aim," like a rifleman, across the tops of the shoulders, and then draws nearer and watches the play of the "inferior angles of the scapulae in breathing, with a movement like that of the fins of a fish." The paralysis might be either mainly "acromial" or "angular." Curiously enough this seemed to depend on the higher or lower location of the disease, which thus paralyzed the parts nearest. A very elegant way of testing "angular" stiffness, especially in a fully-clad lady, was to place the two index fingers, as "pointers," lightly on the lower ends of the shoulder blades, and watch their motion as she sighs.

This stiffness of the shoulder was least in recent attacks. It varied most in different stages of phthisis, was slightest in pneumonia, and greatest in pleuritic affections.

In reply to the question of the *originality* of these different suggestions which had been raised, Dr. C. stated that for a year past, excepting the "second position," in his lectures to students he has spoken of them as "novelties in the books," and as "belonging to the New York school." He has searched for them elsewhere in vain.

If it was *fairly* proved that he was mistaken, he would gladly make honorable restitution. In adopting these little improvements, he, Dr. Corson, was not aware that he was copying any other physician. He dwelt especially on the importance of timely warning to consumptives to change from dusty or unhealthy avocations and bad nourishment to fresh air, generous food, and suitable treatment. The faintest evidences of danger were then useful.

He commended these simple expedients as throwing new light upon one-third of the fatal diseases of the race. In consumption alone, he believed they added fully one-third to our means of detecting its earliest signs.

The discussion of Dr. DALTON'S paper "On the Anatomy of the Placenta," which will be found in the MONTHLY for July, 1858, was entered upon at the meeting of the Academy, December 11. Dr. JOHN O'REILLY read an elaborate and lengthy paper on the subject, maintaining views similar to those anatomically demonstrated by Dr. Dalton, that the uterine vessels penetrate into the placenta, passing entirely through it, and in contra-distinction to those held by Harvey and others, that there was no vascular connection between the mother and foetus.

Dr. O'Reilly made an argument by analogy. He argued that as it was a prescribed law for arteries to terminate in capillaries, and veins to take their origin in them, so this anatomical characteristic must hold good for the uterine arteries and veins. He found a striking analogy between the anatomy of the placenta and liver. As in the latter the anatomical arrangement is a division into lobules in which the vessels of this gland inosculate, so in the placenta he finds the same division into lobules in which the uterine and hypogastric arteries inosculate.

An analogy was also drawn between the placenta and kidney, for the support of the view that the uterine vessels pass entirely through the substance of the placenta. In the kidneys, before the renal arteries send off their minute ramifications they pass to the bottom of the tubular bodies. So in the placenta, as Dr. Dalton has conclusively demonstrated, the uterine sinuses extend through its whole thickness, quite to the surface of the foetal chorion. Other analogies were made by Dr. O'Reilly to substantiate these views.

—The editor of the Gazette Hebdomadaire, of Paris, M. A. Dechambre, has been publishing in that journal the results of his observations in the treatment of phthisis pulmonalis by the alkaline hypophosphites, which is known as Churchill's method. Twelve cases were sent to him by Dr. Churchill, while they were under Dr. C.'s own treatment, and were examined at intervals by Dr. Dechambre during the course of the treatment; a careful note of the condition of the patient being made each time. He arrives at the following conclusions:

"Of the twelve cases of which I have made a statement, there are two in which I doubted, from my first examination, the existence of tuberculous phthisis, at least as being the chief of the local or general diseases of which it was necessary to notice the ultimate progress. In one of these two cases the general condition was improved, and the local disease remained stationary at the end of four months. In the other, all the disease had disappeared at the end of four months. Ten cases remain which can be called tuberculous phthisis, with every appearance of certainty. Of this number, in *one*, the local disease was improved at the end of four and a half months; in *one* it remained stationary at the end of four months; and in *eight* it was aggravated at the end of 4, 2, 3, 5, 4, $3\frac{1}{2}$, $4\frac{1}{2}$ and $3\frac{1}{2}$ months respectively. As to the general condition, in *five* cases there was evident amelioration; in *one* there was no appreciable change; and in *four* there was aggravation. In two of these last cases, it is true, the last note of M. Churchill makes no mention of the general condition, but my eyes assured me that this was far from being improved.

"After these results, it is impossible for me to attribute to the method of treatment adopted by M. Churchill any influence over the progress of tubercles, for we know very well that in this disease the disorganization of the lung is far from being continuous, even in the absence of all treatment; that, on the contrary, the evolution of tubercle usually presents periods of repose, during which the *rales*, consequent on congestion of the tissues or the secretion of liquid products, diminish or disappear. This is a point on which Dr. Austin Flint has lately insisted.

"As to the influence of the treatment on the general health, especially upon the fleshiness of the patient, as well as upon certain of the thoracic symptoms, I ought to say, that it has seemed to be quite apparent. Nevertheless, I should not dare to rest my opinion on this small number of facts; and, at any rate, I could not see that there was anything *specific* in this result. Many preparations, but especially cod liver oil, when phthisical persons first use them, have the effect of

at once restoring the flesh, the strength in a measure, and even of diminishing the cough and the expectoration; but this does not stop the tuberculous disease, which slumbers for a moment only, to awake and resume its work of destruction."

Poisoning by the External Use of Tobacco. From the Journal de Chémie Medicale.

A young man, affected with Herpes circinatus, which resisted all medication, was advised by a charlatan to treat it with the empyreumatic oil of tobacco. He collected a certain quantity of the liquid from the little reservoirs which are attached to some varieties of pipes, and rubbed it on the arm, the seat of the disease. At the end of a few hours he was seized with chill and cold sweats, and almost lost consciousness. Diarrhœa, vomitings, and delirium soon aggravated this condition. During the visit of his physician, the patient had an attack of lipothymia; no other cause for the attack could be conjectured in the case of the young man, as he was otherwise robust and healthy, and there was no doubt that it was a case of poisoning by nicotine. Exciting frictions, diffusible stimulants, and especially the cleansing of the part that had been rubbed, quickly restored him to health.

In a medico-legal point of view, this fact teaches that it is not only necessary in such cases to search for the cause of the disease in the matters contained in the digestive tube.

[In 1834, Mr. Chevallier made known to the French government the necessity of substituting tin foil for lead foil in the wrapping of tobacco; and in the following year a law was passed ordering that such substitution should be made. May not some singular affections, resulting from the use of chewing tobacco, be accounted for by the latter having acquired poisonous properties from the lead in which it was wrapped? The query is worth looking into.—EDS. MONTHLY.]

—*The Influence of Railroads on the Public Health*, is the title of a work by M. Devilliers, in which he has published the results of his investigations upon one of the long lines of France, the Lyons railroad. Placed at the head of the medical staff of the corporation—a connection entirely unknown in this country—he had unusual facilities for observation. The most interesting points to us are, that he finds that the engineers and firemen enjoy, on the whole, a greater degree of health than any other class of employees, including in his estimate the clerks, the men employed about the stations, those who work in the shops, and the laborers on the line. The bright light to which they are subjected does not injure their sight, nor do the rumblings

and noises harm their hearing. From being exposed to such constant blasts of wind from the motion of the locomotive, he supposed that he should find them particularly subject to diseases of the chest; but found that they were less liable to such difficulties than any other class on the road. The explanation given by the author is, that he supposes that the column of air to which they are constantly subjected has a tonic effect upon them, like a general douche of cold water. Two of the physicians of the Orleans road have mentioned that they have found a peculiar disease among their men, caused by the constant jarring of their locomotives. It commences with pains and numbness, and weakness of the lower limbs and in the knees and ankles; after a certain time making it impossible for them to continue in this employment. M. Devilliers, however, does not find any such difficulty. The men feel a little bruised when they get off from their machines, but this sensation soon passes off, without leaving any traces. In fact, those men, after a few months' employment, increase sensibly in flesh and in strength. The author's observation shows that innervation, respiration, circulation, and digestion are habitually stimulated by the life upon the locomotives.

The laborers on the road were found to be quite subject to intermittent fever, even in regions where this had not commonly been found. The author attributes it to the excavations left on either side of the road by the removal of earth for forming the road bed. These became filled to a greater or less degree with water, and are the nurseries of miasma.

A report on the work having been read at the Medical Society of the Department of the Seine, M. Gros stated, that after the construction of the railroad from Strasbourg to Basle, two of the most healthy and most flourishing *communes* of the Upper Rhine, Feldkirch and Bollwiller, were ravaged by intermittent fever. This disease, formerly unknown in that country, where there were no marshes, decimated the population of these villages, so that the authorities were compelled to interfere. The medical faculty of Strasbourg made an investigation of the subject, which proved that the disease arose from the movement of earth necessary for constructing the road, and from artificial marshes of great extent, which had been produced by them. The company was ordered to make some alterations for their sanitary effect. An outlet was given to the water wherever it was practicable; the bed of the other marshes was regulated, and now, sixteen years after the invasion of the endemic, the disease has almost disappeared;

but a whole generation finds itself still under the effect of a paludian cachexia of the most marked character.

After some discussion by other members of the Society, in which the effect of moving large bodies of earth, and turning it up to the sun, was declared to be the production of intermittent fever, though of a temporary duration where there is no standing water. M. Gros remarked that the evil influence of the excavations in which the water remained of necessity, from the impossibility of drainage, could be avoided in a measure by giving the proper form to the banks. When these are sloping a more or less extensive surface is alternately covered by the water and exposed to the air. This seems to develop a great quantity of miasm when the water is low. On the other hand, cut the bank perpendicularly, and you will almost entirely get rid of the miasmata which produce intermittent fever. This experiment has been tried on a great scale on the plain of Alsace.

Perchloride of Iron in the Treatment of Acute and Chronic Urethritis.

By M. BARUDEL.

The researches of M. Barudel show that the perchloride of iron, besides its hæmostatic properties of which so frequent use is made, has, when given internally, a very manifest sedative influence on the general circulation. In thirty patients subjected to the treatment, the pulse, which was from 70 to 80, fell on the second or third day to 60, and even 50 a minute. The salt, moreover, did not produce in the stomach any cramps, pinchings, drawings or uneasiness in the cardiac region, nor colic, nor constipation in the intestines.

Chloride of iron has also given M. Barudel some remarkable results in the treatment of urethritis, both acute and chronic. In the acute form the author ordered, three times a day, urethral injections composed of 10 grammes (the gramme is gr. 15.43) of iodide of lead, suspended in 100 grammes of distilled water, at the same time that he administered the following potion:

R—Distilled water, 60 grammes,
Perchloride of Iron (at 30°) 20 drops,
Simple Syrup, 15 grammes.

To be taken every two hours; continue this medicine for ten days.

In the chronic form the internal treatment is just the same. The injection of iodide of lead is replaced by the following:

R—Perchloride of Iron (at 30°) 25 drops,
Distilled water, 100 grammes.

Make three injections a day, taking care to keep the liquid in the canal for ten minutes.

If the pain produced by this injection is too acute, or lasts too long, it may be followed by two or three injections of cold water, and the patient should be allowed to rest a day.

This treatment has never produced any kind of accident. In general, at the end of three days there is marked improvement, and by the fifteenth day of its use the cure is complete. M. Barudel joins with it a strengthening diet and cooling drinks, such as milk and flaxseed tea with nitre.—*Bullet. Gen. de Therapeut.*, May 15, 1858.

—*Dr. A. Mercer Adam* continues his sketches of Universities, Hospitals, &c., of the Continent, in the *Edinburgh Medical Journal*, from which we have already made extracts. We present our readers this month his account of the University of Bonn and some of its world-renowned professors.

I know no pleasanter town in Germany than Bonn on the Rhine. At the very portals of the magnificent scenery which opens out as we pass the *Siebengebirge*, the "castled crag of Drachenfels," and the romantic ruins of Rolandseck, it lies in a pleasant, fertile valley, surrounded by

"Hills all rich with blossomed trees,
And fields which promise corn and wine."

It is well built, with wide streets and open squares, which are quite devoid of the close, indescribable smells so common in many German towns, and through which the fresh, pure air circulates so freely, that one always feels in good health and spirits during a residence here. Its university ranks as the second in eminence in Prussia; and the names of its late professors, Niebuhr and Schlegel, as well as of such living teachers as Jahn, the philologist; Bischof, the chemist; Helmholtz, the physiologist; Wutzer and Busch, the surgeons; Kilian, the obstetrician; and Böcker, the pharmacologist—have given it a very widely-spread reputation throughout Europe. It was founded in 1818, by the King of Prussia, and owes its celebrity in no small degree to the great discrimination which the government has always shown in the selection of its professors, and in the maintenance of a high standard of discipline among its students. Most of the Prussian nobility send their sons to Bonn for their education; and, as is well known, the Prince Consort of England studied here when a young man, and it is said that one of our young English princes is shortly about to follow his father's example. The university occupies a splendid range of buildings, which was built as the palace of the Electors of Cologne, in 1730, and was formerly occupied by them as a court residence. It contains spacious lecture rooms, a library of about 150,000 volumes, and a fine academical hall, which is decorated with frescoes. Behind the university, in the *Hof-Garten*, stands the handsome anatomical building, which contains the dissecting rooms, the anatomical museum and lecture room. Professor Helmholtz has also a lecture room in it, in which there is a solar microscope by Chevalier, and in which the

windows and doors are arranged so as to enable the observer working at the instrument to regulate the amount of light admitted into the chamber. There is also a room here full of very curious skulls, exhumed from the old Roman camps in the vicinity of Bonn—the so-called “Castra Bonnensia.”

One of the most interesting men in Bonn is unquestionably Professor Helmholtz, the inventor of the Eye-Speculum—an instrument which has opened a new era in scientific ophthalmology. When this little instrument was first invented, many looked upon it merely as an ingenious continental toy, which was destined to play no important part in the practical treatment of disease; but, on the contrary, in the hands of every truly scientific oculist, it has now become absolutely indispensable for the correct diagnosis of affections of the eye. Thus Arlt at Vienna, Græfe of Berlin, and Donders of Utrecht, use it constantly in their examinations of patients, and look upon those who pretend that they can treat ophthalmic affections without its aid as little better than charlatans.

Helmholtz has for some years been Professor of Physiology in Bonn, but he has recently been elected to a chair in the University of Heidelberg, and probably ere this he has left Bonn to make arrangements for commencing his lectures during the ensuing winter. In appearance, he is one of the most striking men that I have met on the Continent. He is still quite young, probably between thirty and forty, with a very intellectual countenance, a lofty brow, thin lips, and deep, restless, black eyes. He is very dark, and resembles an Italian more than a German in his general *physique*. He is a very accomplished man in every respect, and is said to be one of the best mathematicians, as well as one of the best physiologists, in Germany. He treats every subject with which he is engaged, in a most masterly and philosophical spirit, and investigates all things independently for himself, never resting content with the traditions of the elder physiologists. In the course of conversation with him, I found that he was particularly interested in the able researches of Professor George Wilson, of Edinburgh, on the subject of color-blindness. He said that he had repeated many of Professor Wilson's experiments, but had experienced great difficulty in doing so, on account of the rarity of color-blind people in Germany. He told me of one very curious case of color-blindness which had come under his observation, in which the person recognized a greater difference of color between two shades of green—produced by Scheele's green (arsenite of copper) and sap-green, which seemed very slightly dissimilar to ordinary eyes—than between the two colors of green and red. Helmholtz also suggests the propriety of further investigations being made by means of spectral colors; a hint which I would commend to the attention of the talented Professor of Technology.

Another scientific physician in Bonn, whose works have of late years attracted much attention, is Dr. Böcker, *Kreis-Physikus*, and lecturer on Pharmacology and on Medical Jurisprudence. This gentleman is distinguished for the numerous series of elaborate experiments which he has performed, chiefly on his own person, to show the effects of

water, tea, coffee, wine, and also of various drugs, on the animal economy. The results which he thus obtained form a very important contribution to our scientific knowledge of dietetics and pharmaceutics. Thus he has shown that tea and coffee are by no means unimportant dietetic agents, inasmuch as, by their influence, destructive metamorphosis of tissue is temporarily arrested, and so there is positive gain to the economy, as well as actual saving of more expensive articles of food, by their use. So also with wine and beer—he has shown by these experiments that the arguments of the teetotallers, against the moderate use of such stimulants, are incorrect; and that, instead of every glass of wine or tumbler of beer being so much poison imbibed, they are in reality life-sustaining agents of high therapeutic value, when thus taken at the proper time, and in moderate quantities, by a man exhausted in mind or body.

His most recent pharmaco-dynamic experiments, which, I believe, are as yet unpublished, have been made with sarsaparilla. He informed me that, after carefully performing ninety-eight experiments with this drug on healthy people, he found that, contrary to all our usually received opinions on this subject, it possesses neither diuretic nor diaphoretic properties. Another series of twenty-six experiments, on the persons of uncured syphilitic patients, gave exactly the same results. Böcker also satisfied himself that sarza does not increase the efficacy of the agents, such as iod., potash, etc., which are usually given along with it; and that the good results obtained by the administration of this salt, dissolved in decoction of sarza, are in no degree attributable to any virtue in the solvent fluid. I told Dr. Böcker that I remembered hearing Professor Syme, many years ago, express his opinion on the utter uselessness of so expensive a drug as sarza—remarking, in his own quaint, forcible style, that he believed an “infusion of hay” would be just as good, and a vast deal cheaper. He seemed amused, and said that he entirely agreed with Syme—that infusion of sarza had no greater effect on the system than so much common tea; and that we must regard it merely as a pleasant, but very expensive vehicle for the administration of other medicines. If this be so, why should the expenditure for this costly drug form so large an item in the accounts of our public hospitals?

In practical surgery, there are two excellent professors in Bonn—the one is Busch, the teacher of systematic and clinical surgery; the other is the veteran Wutzer, the inventor of the operation which bears his name, who lectures on wounds and herniæ.

The Clinical Hospital immediately adjoins the University, but it is not of any size, possessing only about ninety beds. About forty beds are devoted to the reception of the surgical and ophthalmic patients under the care of Professor Busch, who is a pupil and follower of the eminent Langenbeck, of Berlin. He has attained considerable celebrity by his successful treatment of ankylosed joints, by means of Langenbeck's method of forcible extension—the limb being thereafter put up in plaster of paris bandage—(*gypsum verband*). I saw many interesting cases in his wards, in which very successful results had followed this operative proceeding—the deformity being in a great meas-

ure removed, and a wonderful degree of mobility restored. The professor particularly directed my attention to the case of a boy, whose history was this:—He had met with an accident which had occasioned dislocation of the radius, and fracture of the ulna. The dislocation had never been properly reduced, so that the projecting head of the radius was always breaking through the skin; and the union which took place at the site of the fracture had caused great curvature of the ulna, and consequent deformity. To remedy this state of matters, Professor Busch performed resection of the joint—cutting off the projecting head of the radius; and having tried ineffectually to fracture again the ill-united ulna, he divided it subcutaneously by means of a saw. He afterwards put up the arm in the plaster bandage, and in this state I saw the little patient, doing very well. Prof. B. informed me that he intended by and by to bend the joint, so as to give it a certain degree of useful mobility. I saw two patients in whom amputation at the ankle-joint had been performed, by Pirogoff's modification of Syme's operation, which many of the German surgeons prefer to Syme's original mode, thinking that it affords a better stump. I have never seen any stumps, however, by this operation, which were neater or better than those made by Mr. Syme. And here I may observe, that by surgeons, everywhere throughout Germany, the name of Syme is held in the highest honor, and his operations are regarded as among the greatest advances of modern surgery.

—We learn as we are going to press that the distinguished physician and pathologist, Dr. Richard Bright, of London, is deceased. He died about the middle of December, after a very short illness. The *Medical Times and Gazette* of December 18th, from which we take this announcement, does not mention the cause of death.

—MM. Gosselin and Jarjavay have been recommended to the Minister of Public Instruction, by the Faculty of Paris, as candidates for the Chairs of Surgical Pathology, and of Anatomy respectively.

—At the opening of the School of Medicine in Paris, Prof. Grisolle pronounced a eulogy upon M. Chomel, which, it is said, was one of the best written, and one of the most tasteful discourses of the kind which has been heard upon a similar occasion for a long time. M. Grisolle was a pupil of the late M. Chomel, and an ardent admirer of the qualities of head and heart which elevated this distinguished teacher to the very highest rank among the medical men of his country and of the world.

—A new anæsthetic, called Acetone, has been introduced in London. It is not so disagreeable as amylene. It is less durable in its action than amylene or chloroform. It mixes with water, and can be used in damp warm sponges, and does not spoil with keeping.

— *The New York Medical Press* is the title of a new medical journal which has made its appearance in this city during the last month. It is edited by Drs. J. L. Kiernan and W. O'Meagher. It is published every Saturday, at Three Dollars a year, and contains 16 large octavo pages. It supplies a place in the medical literature of this city which can be reached in no other way. Reports of cases occurring at the College Cliniques, Hospitals, and Dispensaries comprise the contents of the numbers we have already seen. It is well printed, on good paper, and its appearance is highly creditable to the projectors. We understand its success is already *un fait accompli*. We cordially welcome the new journal, while we sympathize with the editors in the trials and labors of their new vocation.

Books and Pamphlets Received.

The History of Prostitution: Its extent, causes, and effects throughout the World. By W. W. Sanger, M.D., &c. New York: Harper & Brothers, 1858.

Brief Expositions of Rational Medicine; to which is prefixed the Paradise of Doctors, a Fable. By Jacob Bigelow, M.D., &c. Boston: Phillips, Sampson & Co., 1858.

Transactions of the Third Session of the Medical Society of the State of California, convened at San Francisco, February, 1858, pp. 168.

The New American Cyclopædia: A popular Dictionary of General Knowledge. Edited by George Ripley and Charles A. Dana, Vol. IV. Brownson—Chartes. New York: D. Appleton & Company, 1858.

Proceedings of the American Pharmaceutical Association, at the Seventh Annual Meeting held in Washington, D. C., Sept., 1858. Philadelphia, 1858.

The Science and Art of Surgery. Being a Treatise on Surgical Injuries, Diseases, and Operations. By John Erichsen, Prof., &c. Philadelphia: Blanchard & Lee, 1859.

A Practical Treatise on the Diseases of Children. By D. Francis Condie, M.D., &c., &c. Fifth Edition, revised and enlarged. Philadelphia: Blanchard & Lee, 1858.

A Treatise on the Venereal Disease. By John Hunter, F. R. S., with copious additions by Dr. Philip Ricord, &c. Translated and Edited, with notes, by Freeman J. Bumstead, M.D., &c. Second Edition, revised, containing a résumé of Ricord's recent lectures on Chancre. Philadelphia: Blanchard and Lea, 1859.

Syllabus of the Course of Lectures on Medical Logic, delivered in Marischal College and University, Aberdeen. By Francis Ogston, M.D., Prof. of Medical Logic and Medical Jurisprudence. Edinburgh: Maclachlan and Steward, 1858.

Leçons sur le Traitement des Tumeurs Hémorrhoidales par la méthode de l'Ecrasement Linéaire. Par M. E. Chassaignac, &c. Paris: J. B. Bailliere et Fils, 1858.

THE AMERICAN MEDICAL MONTHLY.

FEBRUARY, 1859.

ESSAYS, MONOGRAPHS, AND CASES.

Croup: Its Treatment by Cauterization and Catheterism of the Larynx.
By HORACE GREEN, M.D., &c.

[Read before the Academy of Medicine, Jan. 5th, 1859.]

The observations, which at this time I have the honor to bring before the Academy, are founded upon some interesting scientific intelligence which I have recently received from Prof. Trousseau, of Paris, in relation to some important and late improvements (by the French so considered) in the treatment of croup, and other diseases of the air-passages. Prof. Trousseau, in his letter, describes minutely what has been called the "Method of M. Loiseau," and recommends the adoption of this plan in the treatment of these diseases in this country, particularly in membranous croup and diphtherite.

This plan of topical medication, to which M. Trousseau alludes in his communication, was first brought before the profession of France in a paper presented by M. Loiseau to the Academy of Medicine of Paris, at one of the sittings of that body, in 1857, and which was entitled:

"A simple and easy method of entering the air-passages in order to cauterize them, or, to extract false membranes; to dilate the glottis; to introduce substances used in the treatment of croup, either in the form of liquid or powder, and finally to take the place of tracheotomy."

The method is thus described by M. Trousseau: "It was after M. Loiseau," he says, "had seen several children, attacked with croup, die of the disease, that he invented some instruments, and a method of operating, for entering the larynx, as the pharynx is entered." I should here state what Prof. Trousseau has with great candor admitted in his letter, that, although he formerly believed (as he has publicly announced) that the sponge probang used by myself, and others, for cauterizing the trachea, was more frequently introduced into the pharynx than the larynx, yet he now believes what, he says, *has been demonstrated to him by examples, that those who have skill do enter the trachea in this operation*—an admission, alike honorable to himself, and worthy of imitation.

"This method of M. Loiseau," continues Prof. Trousseau, "is simple and infallible. He protects the metacarpal phalanx of the left index finger by a metallic ring two or three centimetres in height, and introduces it rapidly and deeply into the mouth, so that the ring may be placed between the molar teeth, and keep the jaws apart. With the extremity of the finger which is free, he depresses the tongue, seizes the epiglottis, raises it, and presses the end of the finger between the aryteno-epiglottic folds. There is, then, nothing more easy than to make the end of the tube, which is only the tube of Chaussier, glide over the finger. The air which escapes through the exterior extremity of the tube proves that it has really entered into the larynx. Through this tube, serving as a conductor, a caustic, the nitrate of silver for example, or any other medicated substance, may be carried in the curette of a flexible metallic shank." * * * "This operation of catheterism of the larynx," says Prof. Trousseau, "is considered as a very good means for taking the place of tracheotomy, and, at all events should be tried before practicing that operation."

On the reading of the paper of Loiseau, to which I have referred, before the Academy, MM. Trousseau and Blache were appointed a commission to report on the same; and their report, made at a subsequent meeting, was highly favorable to the plan of M. Loiseau, and was unanimously adopted by the Academy. The discussion that followed the report of the commission is of great interest. It may be found in the *Union Medicale* for August 27, 1857, and also in the *MEDICAL MONTHLY* for November, 1857. M. Depaul, alluding, in the discussion, to the declaration of the commission that the process of catheterism of the larynx, as had been proposed, was very difficult of performance, said, "but I maintain that nothing is easier than this catheterism for those that have performed it a certain number of

times." He did not, however, consider it equal in value to tracheotomy.

"The operations of tracheotomy upon the larynx," said M. Piorry, "for diseases which are most frequently only secondary, are perhaps too much esteemed. In these cases the operations only shorten life, for they are useless in curing the primitive lesion. * * * The operation of M. Loiseau, which, at least, is exempt from the dangers of tracheotomy, is preferable to the last." M. Velpeau declared that to M. Loiseau "belonged the merit of having called attention to the subject." "Thanks to his memory," he continued, "we know that croup can be cured without operating for tracheotomy. That is a great deal. * * * I believe the operation recommended by M. Loiseau is a good one. While diphtheritis is at the opening of the air-passages it is curable, and M. Loiseau has ascertained that it is not difficult to carry medications into the larynx."

The learned editor of the *Gazette Medicale de Paris*, in alluding to the discussion of the Academy, says of laryngeal cauterization: "As a therapeutical means it merits a more serious attention. What is the relation of cauterization to croup? It is a powerful energetic means, *the only one which up to this time has really succeeded*. When the disease is limited to the upper part of the air-passage we cauterize, and all practitioners agree that this means is truly of great benefit. What is laryngeal cauterization other than carrying beyond the limits of ordinary cauterization a remedy recognized as good, efficacious, not only against the essence of the disease itself, but also against the pathological secretion? Laryngeal cauterization is, then, in this respect, much superior to tracheotomy. Experience seems to have already confirmed these theoretical hopes—future experience will say much more of it."*

In the *Gazette Hebdomadaire* for August 27, 1857, the editor, after calling attention to the fact that cauterization in croup has been employed in America, adds: "The *Gazette Hebdomadaire* has translated or analyzed papers upon this subject, published in America and England; it has been careful in making the most express reserves both upon the possibility of the operation itself, and its practical value; but all these reserves are an additional reason for desiring that these experiments should be repeated by us, with that attention which the authority and the honorable position of our American *confrères* com-

* *Gazette Medicale de Paris*, August 29, 1857; also, translation in *MEDICAL MONTHLY*, Nov., 1857, pp. 321-2.

mand. M. Loiseau, anticipated, as is seen in every particular, gives us, however, a useful example, and his merit will still be great if he succeeds in introducing into common use a practice worthy of more attention that it has yet received."

In describing the instruments employed by M. Loiseau, in the following number of the *Gazette Hebdomadaire*, (September 4,) and his method of operating, the editor remarks: "M. Loiseau affirms that he penetrates with these instruments much further than the larynx, even to the bifurcation of the trachea. It is seen that this is a repetition (extended and perfected) of the American processes, so much the more remarkable that it dates, in the knowledge of many persons, from a period when the labors of Americans were not known in France, and, perhaps, were not commenced."* Still later, in November 9, 1857, the French journals contain the history of a case of diphtheritis, treated successfully by catheterism and cauterization of the larynx, in the practice of Prof. Trousseau. The *MEDICAL MONTHLY* for January, 1858, contains the following case, translated from the *Gazette Hebdomadaire*, of the 6th of November, the successful treatment of which is termed by the editor a "Therapeutical Conquest of great importance."

"An application of the instruments of M. Loiseau has just taken place in the service of M. Trousseau, who made a very favorable report upon it, at the Academy. * * * * * The application of the instrument was upon a little girl, four years old, who entered Hotel Dieu, October 9th, for diphtheritis, affecting exclusively the tongue, and accompanied by a slight engorgement of the sub-maxillary glands. The weak voice and hoarse cough, however, announced that the larynx was beginning to be affected. The cauterization of the tongue, at first with a stick of the nitrate of silver, and afterwards with a solution of the sulphate of copper, insufflations of tannin, and of alum, in the pharynx, the internal use of the chlorate of potass, brought about some diminution in the extent of the false membranes. The other symptoms persisted, and some fever arose. The evening of the 23d, according to the instructions left by

* In the introduction of my work on "Diseases of the Respiratory Organs," it is stated that: "On the 26th of November, 1838, the Rev. Mr. Tilden, of Vermont, who had suffered many months under follicular laryngitis, came under my care, and was treated successfully by topical applications of the nitrate of silver to the pharynx and larynx. During the year 1839, I treated many cases of chronic laryngitis by cauterizations of the larynx and trachea. These cases were reported before the New York Medical and Surgical Society, as the records of that Society will show."

M. Trousseau, the chef de clinique, M. Blondeau operated for catheterism of the larynx, after the process of M. Loiseau.

"The first phalanx of the index finger of the left hand being armed with a metallic thimble, the operator opened the mouth of the child by means of a spoon, and introduced the guarded finger. Along this finger the operator carried rapidly a metallic sound, supplied with two fenestræ, and properly curved at its extremity. In this manner he readily reached the larynx, when the finger holding the epiglottis raised, permitted easy access. The fact that the sound had actually penetrated into the air-passages was announced by the noise which the air made in escaping through the instrument. Through this was immediately thrown a caustic injection, (a saturated solution of the sulphate of copper,) then the sound was withdrawn. The whole operation—the introduction of the finger, the catheterism, the injection—required hardly a few seconds.

"A remarkable fact, and which M. Blondeau, who performed this operation for the first time, did not anticipate, was, that the operation did not appear at all painful to the child, except at the moment when the finger was introduced into the mouth, and the epiglottis raised. It was only then that the child struggled. As to the catheterism, and the injection itself, she bore them wonderfully well.

"Another proof that the sound was really in the larynx, and even in the trachea, is that the injection of a considerable quantity of the caustic solution produced neither vomitings nor nausea; and it is well known that a very small quantity only of the sulphate of copper, taken into the stomach, is necessary for provoking not only painful desires to vomit, but excessive vomitings. Nothing of the kind, however, took place, and the patient rejected by the canula only a little viscid mucus, evidently coming from the bronchial apparatus.

"The next morning, the 24th, the voice had regained in a great degree its clearness.

"A second catheterism was nevertheless made, this time by Prof. Trousseau himself, (who was also bitten by the child, yet succeeded in making the operation.) In the evening the operation was again repeated, but this time the finger was better protected, by a slight modification in the form of the ring, the superior face of it being increased in size. The catheterism performed by M. Trousseau was witnessed by Dr. Bouchut, who, as well as all the assistants, acknowledged not only the facility, but the harmlessness, you can say the benignity even of this operation.

"The morning of the 25th, the catheterism was performed for the

last time. The condition of the patient very much improved, the voice was clearer, the lingual diphtheritis had almost disappeared.

"The 28th, the child was in a state of convalescence, although the voice remained a little hoarse."

Quite recently, in a number of the *Gazette Hebdomadaire*, as late as that of the 17th of September, 1858, is an account of several cases of membranous croup, treated by cauterization of the larynx. One case, which is reported by M. Gros, and is represented as having been one of great severity, was that of a child, five years old; robust, and of an excellent constitution.

The employment of emetics, and other remedies, together with cauterizations, with a solution of nitrate of silver, to the fauces and pharynx, afforded for a time some relief, by a removal of portions of the false membranes. But notwithstanding the symptoms increased in severity, for the diphtheritic inflammation had reached the larynx and trachea, as was indicated by the intense tracheal râle, the croupal cough, and the frequent accessions of threatened suffocation. MM. Trousseau and Loiseau were called in consultation. M. Loiseau immediately practised catheterism of the larynx, introducing the sound, and injected into the larynx and trachea a solution of nitrate of silver. "This operation," says M. Gros, "was accompanied neither by suffocation nor by any other accident; and on withdrawing the sound it was found to be filled with thick white false membranes." The following night was passed much more calmly than the preceding; respiration much easier, and the attacks of suffocation almost entirely absent. But on the next day, the fauces and pharynx presenting an appearance less favorable, M. Loiseau practised a second catheterism, followed by an injection of a solution of tannin. At 4 o'clock on this day the patient was seen by M. Trousseau, who, although highly gratified with the improved condition of the case, still believed, inasmuch as the voice and cough was yet croupal, that notwithstanding the amelioration of the symptoms, this condition would not continue, and that the operation of tracheotomy would be required. The improvement, however, continued, and on the day subsequent to the visit of M. Trousseau, and the one on which he proposed to operate, many portions of false membrane were expelled, which presented the appearance of having come from the air-passages. As a precaution, M. Loiseau practised a third catheterism of the larynx, followed, as in the last instance, by an injection of tannin. From this moment no farther medication was employed.

The nourishment of the patient was gradually increased, and she soon perfectly recovered.

"This fact," says the learned editor of the *Gazette Hebdomadaire*, "has an important practical signification, and speaks loudly in favor of the advantages which may be derived from catheterism of the air-passages, and from topical application, carried by this measure directly into the larynx and trachea."*

Now it is this plan of topical medication, denominated by the French journals all along as "the method of M. Loiseau," and described by them as a *new* manner of treating diseases of the air-passages, that Prof. Trousseau in his letter, to which I have referred, describes and commends as a most important measure in the treatment of diphtheritic inflammation, and recommends its adoption. Indeed, this eminent practitioner now discourages the employment of all the ordinary violent remedies, such as severe vomiting, blisters, leeches, &c., &c., and depends upon direct catheterism or cauterization of the air-passages, followed, if this measure is unsuccessful, by tracheotomy. His method of performing this last operation, M. Trousseau has described to me (heretofore) very minutely, and this description I shall presently give. But I trust that the members of the Academy will pardon me, if I first ask their attention to a brief rehearsal of what has been done in this country, and particularly by the members of this Academy, long since, in the advocacy and employment of topical therapeutical measures in the treatment of croup—measures which are now claimed very generally by the French profession as peculiarly their own; albeit, many of those French practitioners and journalists who now advocate the practice, were, but quite recently, among the number who doubted, and even denied the possible practicability of these same measures.

It will be recollected by some portion of the profession, that over ten years ago, namely, in 1848, the writer published a small treatise "On the Pathology of Croup, and its Treatment by Topical Medications," in which essay the declaration was made, that the practice of making topical applications of medicinal agents into the larynges of young children, for the treatment of membranous croup, is a plan entirely practicable, safe, and, when judiciously employed, "*in the highest degree efficacious.*"

This method of treating a disease, hitherto so generally unmanageable, was founded among others, upon the following propositions (which were then advanced, with regard to the pathology of the dis-

* *Gazette Hebdomadaire*, September 17, 1858, p. 660.

ease,) namely, "That the essential characteristics of true croup consist in an inflammation of the excreting surfaces of the fauces, larynx, and trachea, which is always productive of a membranaceous or an albuminous exudation.

"2. That the membranaceous concretion, which is found coating the inflamed mucous surface of the parts in croup, is an exudation, not from the membrane itself, but is secreted principally by the muciparous glands, which so abundantly stud the larynx and trachea.

"3. That the exudative inflammation commences, invariably, in the superior portion of the respiratory passages, and extends from above downwards, never in the opposite direction."

In this work eleven cases are recorded, in the treatment of which cauterizations of the larynx were employed, and relied upon as among the most efficient of the measures adopted. The date of the first case of croup, recorded as having been thus treated, is on the 20th of November, 1842; although cauterizations of the larynx and trachea, in the treatment of diseases of these organs in adults, had been employed as early as November, 1838.

Since the publication of the above Treatise, in which this mode of treatment is advocated, the author has had the opportunity of treating many cases of croup on the plan deduced from these views of its pathology—the histories of many of which have never been published—and with an amount of success that has afforded a high degree of encouragement and satisfaction.

I have also received from medical men, in different parts of the United States, as well as from members in Europe, the history of many cases of membranous croup, wherein topical measures, in their hands, have proved effectual in arresting the disease.

To compare the American method with that employed by M. Loiseau, and to show that in both plans the cauterization of the air-passages is the end aimed at, and that this end was attained in this country a long time antecedent to the French operations, I shall give, in a brief manner, the history of several cases which were thus treated.

Having relinquished some years ago, (as it is generally known to the profession,) my attendance upon out-door patients, I have not consequently had many cases of this disease recently under my notice. A few, however, of great interest have been observed, and to these I shall refer.

CASE I.—On the morning of the 31st of December, 1855, Dr. J. O. Smith, a member of the Academy, called at my office, and requested

me to visit with him the daughter of Mr. Hachagne, of Prince Street, who was very ill with the croup. To my invariable objection, that I visited no patients away from my office, Dr. Smith urged the severity and danger of the case, and the distress and anxiety of the parents. In short, I was taken into his carriage and carried to the house of the patient. The child, four years of age, who had been four days sick, was exhibiting all the characteristic symptoms of true croup, in an advanced stage, and of a very severe grade. The countenance of the patient appeared anxious, the face had lost its natural color, the voice was stifled, the respiration very difficult and of a hissing character, and the whole symptoms indicated imminent danger from approaching asphyxia.

The ordinary remedies having been faithfully tried by Dr. Smith, he requested that cauterization of the larynx should be immediately employed. Assisted by the doctor, I passed a small sponge armed probang, saturated with a solution of nitrate of silver, (ʒij. to ʒj. of water,) into the larynx and trachea. After a delay of some ten or fifteen minutes the operation was repeated in the same manner. I am not aware that any other medical treatment was employed. The next morning, January 1st, Dr. Smith called on me, and stated that the symptoms had somewhat improved during the day, and that the following night was passed with less distress than had occurred on the preceding; but that the child was still dangerously sick, and the operation must be repeated. I accompanied Dr. Smith, and found his patient as he had stated—certainly no worse, but still presenting a very unfavorable appearance. Cauterizations were again employed, as on the preceding day. After the second application of the caustic, the symptoms soon diminished in severity, and during the day and night of the first of January the improvement continued. At ten o'clock on the morning of the 2d, when we called, we found a marked and most favorable change had taken place in our patient. A single application was made on this day, and ultimately the child recovered perfectly.

CASE II.—I was called, Dec. 15, 1853, to visit a case of croup, which had been treated nearly a week by two homœopathic doctors of this city. I refused to go. The father of the patient then stated that his child had been abandoned by the doctors, who considered the case quite hopeless; but that his son was still living, and he begged I would visit him, and endeavor to save his life. I stated to my assistant, Dr. Richards, that I would see the patient once, if he would then take charge of the case. We found the child, a little boy, four and a half

years of age, struggling for breath, in the last stage of membranous croup, apparently dying of the disease. It is unnecessary to describe at length the symptoms. The difficult stridulous respiration, the suppressed cough, the pallid countenance, and livid lips exhibited at once the urgency of the symptoms, and the danger of suffocation. The previous medication we could not ascertain, except that *antimony** had been freely given, and the child had been repeatedly and severely vomited. A small armed probang, the sponge saturated in a strong nitrate of silver solution, was passed with some difficulty into the larynx and trachea. Some minute fragments of the false membrane were dislodged by this operation, but no marked mitigation of the symptoms followed the application; and after a delay of ten or fifteen minutes the operation was repeated. If any relief followed the second application it was of short duration. All the unfavorable symptoms soon returned; the struggling for breath, the dry and harsh tracheal respiration, the frequent and weak pulse pointed, as we thought, to a speedy fatal termination; and I left the case, believing that such would be the result. Dr. Richards remained with the patient, and several times during the night applied the caustic solution. Some relief followed each application, but the next day, the 19th, the case appeared so desperate that Dr. Richards, fearing the case was hopeless, after repeating the application thoroughly to the larynx and trachea, left the patient, with directions to be sent for in a few hours, if the child continued to live. He was not called for again, and nothing more was heard from the patient, who was supposed to be dead, of course, until several weeks after this, when the father came into my office "to settle the doctor's bill for attendance upon his boy." Dr. Richards ventured to ask the father how long the poor boy lived after he left him, when he was assured that his son was alive, and in good health; that after the last application he began to improve, and was soon so much better that it was not thought necessary to recall the doctor. In the course of a week he was quite recovered.

In the work on croup to which I have referred, I have expressed the opinion, with reference to the operation of tracheotomy, that we are not justified in having recourse to this measure, until the means now at our command, both topical and general, have been exhausted. Subsequent experience has more fully confirmed me in this opinion. Even in those cases of membranous croup, where the disease has passed

* I was handed the prescription given to this patient by an eminent homœopath of this city. It consisted of a *homœopathic* quantity of belladonna and an *alopathic* quantity of *tart. antimony*.

on to the last stage—the stage of asphyxia, in which a resort to tracheotomy has been considered as the one which can afford the only means of relief—at this stage, we say, patients have been, and may be saved by other operations than that of tracheotomy. Let me illustrate.

A few years ago, January 5th, 1850, I met a member of this Academy in the treatment of a case of croup of much interest. It was that of a son, and I believe the only son of a clergyman, (Rev. Ansel Leo,) of this city, five years of age. He, too, had been subjected to Hahnemannian treatment several days before any efficient measures were adopted. The case threatening to prove fatal, was either abandoned by the homœopathic doctor, or he was dismissed, I cannot say which, and Dr. S—— was called to attend the case. He found the child in the advanced stage of membranous croup; almost in the stage of collapse. Among other measures employed by the doctor, an attempt was made to vomit the child by administering an emetic of sulphate of copper, with the hope of dislodging the false membrane from the trachea, but the effort failed entirely, no emetic effect being produced by this measure. I was called to visit the patient on the 5th of January, and saw the case for the first time at 11 o'clock, A. M., of that day. I found the boy lying in a state of asphyxia. The face and lips were purple, extremities cold, the surface clammy; violent efforts at inspiration were occasionally made, but the anæsthesia was complete. Dr. S—— stated that he had administered, while the patient could swallow, a strong emetic, without producing any effect whatever. Tracheotomy had been considered as presenting the only possible chance of relief, but this chance was deemed too doubtful to warrant its adoption.

At my request Dr. S—— took the patient on his lap, and sustained him there, with his head thrown back on the doctor's shoulder. In this insensible condition the lower jaw fell, the tongue was readily depressed, and nearly the entire epiglottis brought into view. A small sponge probang, wet with the nitrate of silver solution, was easily passed into the larynx, through the rima, and carried down the whole length of the trachea. This was done without the child's exhibiting any opposition or apparent consciousness. On withdrawing the instrument, which appeared for the moment to enlarge mechanically the calibre of the air-tube, the chest was expanded by a full inspiration. The sponge was again wet in the solution, and the same operation immediately repeated. This time the operation was followed by some struggling and a cough, and considerable quantities of viscid fibrinous

mucus and broken portions of membrane were thrown up by the cough and vomiting. After a delay of ten or fifteen minutes the probang was introduced the third time into the trachea. The child, still insensible, was then placed in bed; and it was arranged to meet Dr. S—— in two hours again, and see the patient.

2 o'clock, P. M.—Found the patient at this hour still insensible, but the countenance was not so livid, the surface and extremities warmer, and respiration somewhat less difficult. At this visit cauterization of the larynx and the trachea was twice performed in the same manner as at the first visit; and directions were given to administer, if possible, some stimulus and nourishment, when the child could swallow.

6 o'clock, P. M.—Four hours later we met again at the bed-side of our patient. As we entered the room the little fellow raised his head, and smiling, thrust out his hand to the doctor, whom he recognized, and attempted to speak! A great change had taken place in our patient. Soon after the applications at 2 o'clock were made, quantities of viscid mucus and patches of fibrinous matter were ejected, after which the respiration considerably improved, and the child was able to swallow nourishment and some weak stimulus. From this hour the croupal symptoms began to disappear. No further topical applications were made, and the patient under appropriate nourishment recovered perfectly; but it was three weeks before his voice was restored to a sound above that of a whisper.

I have received during the past few years, from members of the profession in different parts of the Union, the histories of many interesting cases of croup, which have been treated successfully by topical measures. I shall only allude to one of them, which with other cases has been furnished me by Dr. A. M. Vedder, Lecturer on Anatomy and Physiology in Union College. It is another case intended to sustain the proposition that cauterization may be substituted for tracheotomy.

CASE IV.—Louisa —, aged six years, general health previously good, came home from school complaining of sore throat and cough, which was followed by vomiting. A homœopathic doctor was sent for, who treated the case as 'sore throat' for five days; during this time she was not wholly confined to the bed, and was about the house a part of the time. On the afternoon of the fourth day she became very hoarse, with loss of voice and decided croupy cough. November 6th: Confined to bed, with considerable heat of skin and thirst. I saw the patient this day for the first time, at 6 o'clock, P. M. Expression of countenance anxious, skin pale, voice reduced to

a whisper, respiration extremely difficult, high and characteristic, pulse frequent, skin above natural temperature, cough frequent; on examining the throat, I saw patches of lymph on the tonsillary glands, and applied the nitrate of silver with the probang, which did not produce any unpleasant symptoms; her breathing became somewhat easier; during the night her respiration became more difficult, and an emetic was administered, which was followed by some relief.

November 7th, A. M.—Countenance still anxious, color of skin inclining to blue, respiration not much improved, almost complete aphonia; prescribed the following powder, to be taken every three hours:

R —Tart. Antim. gr. $\frac{1}{8}$.
Hydrarg. chlo. mitis., gr. $\frac{1}{4}$.
M.

Applied the silver three times during the day.

November 8th.—No improvement, sweats more freely, and has done so all night; on coughing expectorates a little mucus, particularly after applying the sponge. Continue powders, and apply cold water to the neck by means of a towel.

Nov. 9th.—No improvement; applied the sponge, and on removing it *the false membrane* was found attached to the sponge; and on examination, found it to be a membranous tube two and a half inches in length and about one half the thickness of milliner's pasteboard. The respiration became immediately easier, and she continued to improve from this time. The sponge was not again applied, her cough remained "croupy" for several days longer, her voice did not become natural for more than a week after; the cold water and the expectorants were continued for several days. Her health has been good since.

When, however, cauterization or catheterism fail in the treatment of croup, I believe with M. Trousseau, that we should have recourse to the operation of tracheotomy. This distinguished physician, who has operated in more cases, probably, and with a greater amount of success, than any other practitioner, has been accustomed to perform tracheotomy in croup "as soon as he can feel tolerably certain of the presence of false membranes in the larynx," and before the accession of symptoms of asphyxia.

But Prof. Trousseau now advises, as I have before stated, that topical applications should be resorted to before the employment of tracheotomy and he announces in the "*Union Médicale*," of Novem-

ber last, which I have just received, his conviction, that many lives have been saved, of those "who would infallibly have died, had not cauterization been employed."

In performing this operation in those cases in which tracheotomy is indicated, Prof. Trousseau uses a double canula. The inner tube, which is the smallest, is made to fit perfectly to the outer one, and so fitted that it can be removed without disturbing the external tube, *which is not to be withdrawn*, if possible, until the disease has subsided. To prevent the canula from exciting violent inflammation, from the chafing of the wound, a small piece of oiled silk, with an opening of the size of the tube, through which this instrument is passed, is interposed between the head of the tube and the edges of the wound. The incision being made into the trachea, the edges of the wound are kept apart by the dilator, the child is raised from its recumbent posture, and when the hæmorrhage ceases the canula is immediately introduced. In order to render the air breathed by the child, as near as possible, like the naturally respired atmosphere, M. Trousseau covers the opening of the tube with a *respirator*, which is composed of several folds of thin flannel or of gauze, and which soon becoming moist, imparts vapor to the inspired atmosphere. M. Trousseau is convinced that his success has been greater since he has adopted these improvements. As often as respiration becomes difficult, from an obstruction of the tube, the inner canula must be removed and cleansed, and this may be done without in the least disturbing the patient.

During three or four days, after the operation, M. Trousseau employs topical remedies, and these consist of dropping into the trachea, several times in the twenty-four hours, a small amount of a solution of nitrate of silver, in distilled water, of the strength of about five grains to the ounce; and in some instances the canula is removed, and the trachea is cleansed out with a sponge dipped in the nitrate of silver solution.

To prevent the occurrence of diphtheritic inflammation, the edges of the wound are freely cauterized about the second day after the operation; and the patient is well sustained by the frequent exhibition of wine, or small quantities of brandy and water, together with nourishing articles of food, as milk, eggs, cream, &c.

"In 1849," says M. Trousseau, "I performed, in 'l'Hopital des Enfants, the operation of tracheotomy in a case of croup, which was perfectly successful. From that moment the repugnance to the operation which my colleagues had before entertained vanished, and it was then established among ourselves, that thereafter the operation should be

performed in all those cases where every other chance had failed. From that time to the present tracheotomy has been performed in this hospital, under this rule. During this period, from 1849 up to the present time, (November, 2d, 1858,) there have been treated 562 patients attacked with croup; of this number, 466 were operated upon for tracheotomy, and with success in 126 cases—that is to say, 27 per cent., notwithstanding, says M. Trouuseau, “the deplorable condition of the hospital.”

Finally, gentlemen of the Academy, after this brief review of what has been done in this country, and in France, for the treatment of true croup, are we not warranted in adopting, to a great extent, the conclusions of our own eminent and experienced countryman, *Dr. John Ware, of Boston*, as announced in his last essay on the Treatment of Croup? “It is a disease,” says Dr. Ware, “which I would treat without depletion—except, perhaps, by a few leeches—without vomiting, without purging, without blisters, without antimonials, ipecac, and all those other nauseous remedies which have been usually resorted to. I would trust to opiates, perhaps calomel, emollients, and the *local application of the nitrate of silver*.”

ADDENDUM.—Since this paper was drawn up I have received the “*Boston Medical Journal*,” for January 6th, 1859, which contains a report read before the Boston Society for Medical Improvement, by Dr. H. G. Clark, of three cases of membranous croup, treated successfully by “the introduction of a solution of nitrate of silver with the probang into the larynx.” In the first case, a boy $7\frac{1}{2}$ years of age, “the appearances were so alarming, that at first sight tracheotomy apparently offered the only means of saving him from immediate suffocation.” The probang, says Dr. Clark, was passed into and *through* the larynx; it came out loaded with “false membrane.” Brandy and water and beef tea *ad libitum*, and other light food, were permitted, and the patient recovered. In the second case, a little girl 2 years old, with “well-developed croup,” in which “the treatment consisted of the local use of the nitrate of silver, Dover’s powder, steam, &c., and wine whey. The child made a good recovery.”

The third case, a child 2 years and 4 months old, was very severely affected with diphtheritic inflammation. “The tonsils, and indeed the whole of the parts about the entrance of the larynx, were heavily coated with the diphtheritic effusion.” The sponge probang was employed, and “a solution of the nitrate of silver was injected quite into the larynx, with the Warren syringe.” But in this case tracheotomy was required; it was performed, and the patient recovered.

Case of Metro-Peritonitis. Treatment by Opium in Large Doses—Recovery. By REED B. BONTECOU, M.D., Troy, N. Y.

Dec. 4th, 1854, was called to see Mrs. R——, a young, plethoric woman, who a few days before had miscarried, at the third month of gestation. On the morning of my visit she had a severe chill. I found the patient lying on her back, with limbs flexed, and complaining of acute pain over the whole belly. She could not bear the weight of her clothes, or of the hand. Pulse 100, small and wiry; countenance anxious. Having no opium with me, I left her a solution of morphæ sulphat, $\frac{1}{4}$ grain to the teaspoonful, and directed one teaspoonful to be given every hour till the pain abated; to use also hot fomentations to the abdomen.

1 o'clock P. M.—Still complaining of great distress and much tenderness. Prescribed 10 grs. of opium every two hours, and a continuance of hot fomentations.

9 P. M.—Four of the powders had been taken; she was sensibly relieved of pain. There was still much tenderness on pressure over the lower part of the abdomen. Was unable to extend her limbs; pulse 89. Ordered the powders before given to be continued, also the fomentations until the pain was entirely relieved, or sleep obtained.

Dec. 5th, 8½ A. M.—Patient had not slept, and was in about the same condition as on the previous evening. The pain not entirely relieved; she was obliged to lie constantly on the back, with limbs flexed. The powders had been given as directed, and no signs of narcotism present; pupil contracted, skin itching, no great thirst, no appetite, tongue clear, pulse 80, rational; has passed urine once in the last 24 hours; does not complain of pain on that account, and no distension of bladder apparent, though she would not allow me to percuss over it. Prescribed 10 grs. pulv. opium every three or four hours, as the pain might seem to require.

5th, 8 P. M.—Patient had not yet slept, but seemed somewhat drowsy, and thought herself better. Could extend the limbs more than at any time since first taken. Perspiring some; pulse 70; tongue moist, thin white fur, not much thirst; no desire for nourishment; perfectly rational and collected, and thought she could sleep if the house was kept quite; had taken four of the 10 gr. powders since the morning visit. Prescribed 6 grs. pulv. opium every four or five hours during the night.

6th, 9 A. M.—Patient had dozed a little during the early part of the night, but now had increase of pain and tenderness over the whole abdomen, caused by getting up without assistance during the night,

and on a cold floor, to use the vessel. The abdomen was distended and tympanitic; pulse 98, and contracted. She was rational, but wakeful, and had taken but two powders during the night. Prescribed 15 grs. opium every three hours, and oftener if necessary, to subdue the pain; also to take immediately castor oil ʒi. , sps. turpentine ʒss. , and to resume the fomentations, sprinkled with turpentine. She was sweating freely.

6th, 5 P. M.—Patient had slept at intervals during the afternoon, had had several profuse watery discharges from the bowels, had also passed a small quantity of dark urine. The abdominal distension had in a great measure subsided, as well as much of the tenderness. Two of the powders had been taken; face and arms covered with a rose-colored rash; skin moist; pulse 60; eyes a little glassy; not much thirst; no desire for food; was rational, and felt better. Prescribed pulv. opium, 15 grs. every four or six hours.

7th, 10 A. M.—Found patient sleeping; she awoke on my entering the room. The limbs were extended, and she could bear gentle pressure of the hand on the belly without pain. Could not turn on the side; eyes bright; some appearance of the rash left. Complained of an annoying itching of the skin; no great thirst; not the least desire for food; tongue moist. I urged her to take some broth. Prescribed 10 grs. pulv. opium every four hours.

9 P. M.—Comfortable during the day—still unable to turn in bed, or move the limbs with freedom. Skin dry; pulse up to 80, and rather hard; no narcotism as yet; urine dark and scanty; ordered medicine as in the morning.

8th, 9 A. M.—Patient had been worse during the night. She took powders every two hours till four o'clock, after which she slept two hours. Expressed fatigue from lying in one position so long, and begged permission to get up, which was denied; directed pulv. opium every five hours.

9 P. M.—Had taken two of the powders left in the morning; could turn on the side with but little pain; has still some general tenderness of the abdomen. She had noticed a scanty sanious discharge from the vagina; pulse 85; skin rather dry; little thirst; no appetite, but was induced to take a little chicken broth; 15 gr. powder of opium every five or six hours.

9th, 10 A. M.—Considers herself better. Has a slight tympanitic distension of the belly, with a little pain and tenderness. Is resolved to get up, which I told her must be at her own risk; left some pow-

ders of opium, with 5 grs. Dover's powder added to each one, to be taken every six hours.

10th.—Was sent for at 7 A. M. to see the patient; found her relapsed into an aggravated peritonitis; pulse 130; skin dry. She had been out of the bed the previous day, and attempted to cross the room alone. During the night a profuse watery diarrhœa occurred, accompanied by acute pain; had passed urine. Ordered laudanum injections, and hot fomentations to be frequently applied. I gave at once all the opium I had with me, about 3ss., and prescribed opii. pulv., grs. 20 every four hours.

5 P. M.—She was much relieved, wakeful, and sweating profusely; diarrhœa had ceased, and there only remained general tenderness; had passed urine; pulse 85; directed the powders of opium, 20 grs. each, continued steadily, unless stupor should ensue.

11th, 10 A. M.—Found patient bolstered in a chair by the fire, feeling apparently well; pulse 80, irregular; skin moist, covered with fine rash, and very itchy; tongue moist, pupils contracted—3iss. opii. had been taken during the night. Directed opii. pulv. 20 grs. every 8 hours.

12th, 8 P. M.—Had slept some the preceding night, and had taken nine powders since my last visit. Sat up two and a half hours this afternoon; fainted in the chair; vomited, and had several large watery evacuations, followed by a chill; pulse 90; contracted. Distension and tympanitic state of lower part of the belly, with increased tenderness and inability to flex the limbs. Has passed urine, wakeful, has no thirst; ordered opii. pulv. 20 grs. once in seven hours.

13th, 9 A. M.—Still some pain, distension over lower part of abdomen, pulse 80, tongue moist, skin cool, pupils contracted; medicine had been given regularly as directed. Gave orders for them to be continued as before.

8 P. M.—Pulse 75, skin moist and cool; belly less tender, tongue moist, patient feels better, can move her legs again more freely; prescribed 20 gr. pulv. opii. every sixth hour.

14th, 9 A. M.—Pulse 80; had not slept; more pain in the bowels; passed urine and had a natural fecal evacuation. Medicine as at my last visit.

8 P. M.—Pulse 68, soft and full; can move without pain; tenderness of abdomen nearly all gone. She desired some oysters, which I allowed. Prescribed opii. pulv. 20 grs. every five or six hours.

15th, 10 A. M.—Found patient sitting in easy chair; had slept well

during the night, and felt better; had taken two of the powders; ordered them continued at intervals of six, eight and twelve hours.

16th, 12 M.—Is menstruating, and able to walk a few steps, but cannot yet stand erect. Prescribed the opium continued in 10 gr. doses two or three times a day, with directions to discontinue them in three or four days.

She soon became robust again, and has continued so ever since.

Ergot in Phthisis Pulmonalis. By BARENT P. STAATS, M.D., Albany N. Y.

Sometime last spring I noticed an abstract from a Paris medical paper recommending the administration of ergot in phthisis pulmonalis. Having in the course of forty years' practice tested a great variety of medicines in the treatment of this disease without very flattering results, I was induced to try the efficacy of ergot. I had at that time two cases, of a very hopeless nature, in the Albany County Penitentiary, to whom I determined to administer the ergot.

The first case was a young man of intemperate habits, 28 years old, hair light colored, eyes blue, cheeks red, chest narrow and flat. He had been admitted into hospital August 10th. His pulse was 100; respiration 29; had night sweats; copious purulent expectoration, slight chills in the afternoon, followed by fever and slight diarrhœa. He complained of severe pain under the left clavicle, and in the left side of the chest. Percussion dull upon both sides of the chest, with evident disease of both lungs. On inquiry I found that his father had died of phthisis. I prescribed 4 grs. of pulv. ergot, $\frac{1}{2}$ gr. of ipecac, with 1-10 of a grain of sulph. of morphia every six hours; a strong liniment of acetic acid and spts. of turpentine to be applied to the chest, and a full animal diet.

After taking the medicine four days his pulse and breathing became less frequent, the pain of his chest and the diarrhœa ceased, and his expectoration was diminished.

This treatment was continued for three weeks, when he had recovered to such a degree that the ergot was omitted. I gave him some mild tonic, and soon after he was discharged from prison. I have seen him repeatedly since, and although he has resumed his drinking, he has had no return of the disease.

I have had two more cases as strongly marked as the above, which I treated in a like manner, and with the same result.

Two other cases still I have treated with ergot, but they were cases of diseased lungs induced by chronic inflammation; in one I was successful, the other died.

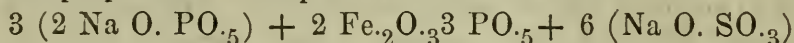
I regret that my notes of these cases do not enable me to be more particular in my descriptions, but such as they are I submit them. If they should induce an inquiry into the virtues of ergot in the treatment of phthisis pulmonalis I shall be gratified. Possibly there may be a virtue in the article heretofore overlooked.

Pyrophosphate of Iron and Soda.

M. Leras, while experimenting on the preparation of pyrophosphoric acid with iron and soda, first proposed by M. Persoz, succeeded in forming a salt with less of the pyrophosphate of soda than that of Persoz contained, and richer in metallic iron than any ferruginous preparation hitherto announced. His formula is as follows:

Distilled water,	600 grammes.
Pyrophosphate of soda,	30 "
Pure sulphate of iron,	14.93 "

These proportions correspond with the formula:



The reaction takes place first between three equivalents of pyrophosphate of soda and two equivalents of the sulphate of iron. The pyrophosphate of iron thus formed, is dissolved in three equivalents of the pyrophosphate of soda. The preparation can be administered in the form of a syrup, but Mons. Leras prefers a solution.

The disagreeable taste of the pyrophosphate of iron and soda has been hitherto an objection to its use, but no such complaint can be brought against Leras' preparation, as it is very pleasant, and preserves its color. In this preparation there are 30 parts of the soda salt for 4.18 parts of metallic iron.—*Journal de Chim. Med.* L. H. S.

Determination of Urea by Titriton.

In the November number of the *Journal of Medical Chemistry*, Chevallier gives the method proposed by Leconte, for determining the amount of urea in urine by the process of titriton, or the use of standard solutions. It is based upon the property possessed by hypo-

chlorite of soda, of decomposing urea into carbonic acid, nitrogen and water.

The apparatus consists of a bottle or small balloon, of the capacity of 150 cubic centimetres, supplied with a suitable tube for receiving the gases, the end of which is placed under a graduated tube filled with water. The preparation consists in exhausting exactly, by means of cold distilled water, 100 grammes of finely pulverized hypochlorite of lime, and then dissolving in the filtered liquid 200 grammes of pulverized crystallized carbonate of soda, filtering and washing the carbonate of lime, and adding water to make the liquid 2 litres.

In order to make an analysis, the urea is placed in the balloon with a small quantity of water; the hypochlorite is then rapidly added, filling the vessel entirely, so that on replacing the cork a small quantity of the liquid may rise in the tube, which should be of small calibre. When this liquid column has extended as far as the end of the tube, the latter must be placed in connection with the graduated tube; the balloon is then to be placed in a water bath and heated up to the point of ebullition. If, notwithstanding this temperature, there is no appreciable discharge of gas, the vessel should be heated by an alcohol lamp, and ebullition kept up until the vapor produces a *dry* sound on condensing in the water, which indicates that it contains no more gas.

The urine experimented upon should be previously purified in the following manner: to 20 grammes of urine add 3 grammes of liquid subacetate of lead, heat to ebullition, filter and wash the filter thrice; then add 3 grammes of pulverized carbonate of soda, again raise the liquid to the boiling point, again filter and wash thrice; the liquid thus obtained, ordinarily amounting to 50 cubic centimetres, the half of which represents 10 cubic centimetres of urine, is treated as above.

Although theory indicates that 1 decigramme of urea should furnish 37 centimetres of nitrogen, Leconte has never obtained more than 34; but this number has been constant in his experiments. Hence by dividing the amount of nitrogen obtained by 34, after the proper corrections are made for temperature, pressure, and tension of the vapor by water, we shall obtain the amount of urea within a few thousandths. The amount of nitrogen furnished by the other azotized constituents of urine is very small, as compared with that coming from the urea, the proportion being about as 54 to 1000.

In this experiment, the nitrogen discharged will have a chlorine odor, but, on washing it with a solution of potassa, or an alkaline solution of pyrogallie acid, while the absence of oxygen and carbonic acid will be determined, it will be perceived that the quantity of chlorine is so small that it can be neglected.

Experiments on the Action of Caffein.

Stuhlmann and Falek, of Marburg, have made a series of thirty-eight experiments with caffein, on dogs, cats, rabbits, birds, frogs, snakes, and fishes, clearly showing that caffein is a poison, that will kill in comparatively small doses, and in a short time. Thus five centigrammes, (about $\frac{8}{10}$ gr.,) introduced beneath the skin of frogs and toads, determined local irritation, sometimes slight excitation of the circulation, respiration, and of the organs of locomotion. Synchronous with this, or somewhat later, there is found hyperæsthesia of the nervous centres, with tonic, cataleptic and tetanic cramps, and sometimes anæsthesia and paralysis.

In one case, the injection of 5 centigrammes into the veins of a cat brought on death in a few minutes. A smaller dose produced death in a few hours. In addition to the tonic and clonic spasms, there was observed salivation, liquid stools, disturbed respiration and circulation, dilatation of pupils, reduction of temperature and anæsthesia. A like dose, introduced under the skin, excited salivation and vomiting, then adynamia, very labored respiration, reduction of temperature, with a tendency to fright and spasmodic and paralytic phenomena.

Large dogs were not destroyed when 5 centigrammes were given by the stomach. But a dog who had survived such a dose succumbed in two minutes after the injection of a like quantity into the jugular; while another, larger and older, was not destroyed by the injection of 25 decigrammes in *the crural vein*. (This difference of result is remarkable; was it on account of the size and the race of the animal, or the vein into which the injection was made? It is unfortunate that this experiment was not repeated.) Whatever the modes of administration, dogs were purged, and food in the stomach produced vomiting. Rabbits died in an hour or an hour and a half, with 3 decigrammes to 5 centigrammes, presenting symptoms analogous to those exhibited by the dogs.

Necroscopic examination exhibited no alteration sufficient to explain the death. There was only found an inequality in the distribution of the blood, only hyperæmia of some and anæmia of other organs; the heart, liver, and larger vessels contained much black blood, possessing all the characteristics of venous blood. All the other alterations were insignificant.

The pathological disturbances caused by caffein are of different kinds; but the most important occur in the nervous system. It destroys by exhaustion of nervous power, and seems to act especially

upon the heart and the parietes of the vessels.—*Archiv für pathologische Anatomie und Physiologie.*

L. H. S.

PROCEEDINGS OF SOCIETIES.

Academy of Medicine.

The Academy met Jan. 5th, the President, Dr. J. P. BACHELDER, in the Chair. The meeting was a business one, the object being the election of officers. After the minutes were read, the Academy proceeded to the election. Ballots were distributed and deposited; and, while the inspectors were determining who were to be the officers for the next year, the usual business of the Academy proceeded. Reports of Sections were called for, but none responded save the Section on Obstetrics, whose Secretary read a report of the proceedings of that Section for the last quarter. The new crotchet presented by Dr. A. K. Gardner to the Academy at a previous session, and referred to this Section, was reported on favorably. It was commended as combining all the advantages of like instruments in common use, with important additions, especially in its sliding guard, which protects the mother and the hand of the operator from the danger of being wounded by the point of the instrument, and is easily manipulated under all circumstances. Some highly laudatory resolutions, passed by the Section upon its presiding officer of the year, were considered by the Academy as belonging solely to the Section, and referred back.

Dr. E. D. HUDSON then presented specimens of Palmer's artificial leg and hand, and explained the mechanism and action of these substitutes for lost limbs. The faithful imitation in shape and movement of the leg was shown. Its entire construction was explained, and the character of its joints, and the ligamentous attachments corresponding to the muscles in the leg, were demonstrated. The necessity of a ginglymus joint at the ankle instead of a universal one, to afford a reliable support and steadiness in walking, was pointed out, and the perfect adaptation of this leg to its uses was shown. The subject was referred to the Section on Surgery.

The President then stated that it had been announced at a previous meeting that Dr. Horace Green would read a paper before the Academy—which they were then prepared to hear.

Dr. GREEN then read a paper on Croup, which will be found in another part of this Journal.

After the reading of this paper, Dr. Watson asked Dr. Green if he could not give some statement relative to the case of the late Stephen S. Whitney, which had been the subject of much remark throughout the city.

DR. GREEN replied that he would, if it was the pleasure of the Academy, relate the particulars of the case as long as it was under his care; that he had written it out from his note-book, wherein the examinations of each case are recorded at the time of examination, and that this written record had been made previous to the death of Mr. Whitney, at the time when the first rumors relative to his last illness had reached his ears.

The Academy assenting, Dr. Green then read the following statement:

On the 25th of October, 1858, Mr. S. S. Whitney called on me, and requested to place himself under my care, for medical treatment. His health, as he stated, had been bad during several years, and for a twelvemonth past he had more or less cough, which cough had increased considerably of late. It was quite severe by spells, he said, and was attended with slight hæmorrhage, which, *he believed*, came from his throat. His face was pale and thin, and his general appearance was indicative of a phthisical condition of the system. I examined his chest by auscultation, in the presence of Dr. Richards, who, as is usual in the cases I examine, made a note at the time of the physical signs observed. I take from this record: chest thin; a little depression is observed on the left thoracic wall, with less expansion on this side; percussion gives a flat sound over all the upper portion of the left lung; slightly dull on the left side. On applying the ear to the chest, a distinct *humid râle* or "*click*" was heard below the left clavicle, in both inspiration and expiration—which, when accompanying the above signs, is positively indicative, in my experience, of the presence of tubercular softening. His throat appeared granulated and inflamed; the left tonsil was slightly enlarged and ulcerated; the epiglottis was thickened, and its border whitened with a line of erosions.

TREATMENT.—The enlarged and ulcerated portion of the left tonsil was removed, the pharynx, the sub-tonsillary fossæ, and the border of the eroded epiglottis were cauterized. A drachm of the following alterative mixture was advised night and morning:

R.—Iodid. Potassæ.....	2 drachms.
Proto-iodid. Hydrarg.....	2 grains.
Tinc. Rhei.....	1 ounce.
Syr. Sarsæ. Co.....	3 ounces.

This alterative was continued by Mr. Whitney during the three following weeks.

Oct. 26.—Applications of a solution of nitrate of silver were again made to the fossæ, epiglottis, and into the glottis.

Oct. 27.—The same treatment continued. After this, I saw nothing more of Mr. Whitney until the 9th of November, when he returned and requested to have the treatment continued. At this visit, and again on the 18th, cauterizations of the glottis and larynx were employed. I now spoke to him of the necessity of giving more attention to his case if he expected to be benefited by the treatment. He named some cause for his long absence, and promised to be regular in his calls thereafter. The soreness of his throat had disappeared and his cough was less for a time, but latterly it had increased again. He expressed much anxiety about his lungs, and at this visit it was proposed to employ the tube and injections into the left bronchus, as soon as the parts were prepared for this operation. For this purpose the topical applications were continued to the opening of the glottis, and into the larynx. It was, I believe, at a subsequent visit, on the 20th, that I made another careful examination of his lungs. Unequivocal signs of a cavity in the superior portion of the left lung were now observed; for, in addition to *humid râles* in this location, the respiratory sound was distinctly cavernous.

A prescription for the following remedy was given to the patient:

R.—Manganesii Phosphat.	2 drachms.
Tr. Cinchonæ	3 ounces.
Syr. Sarsæ	4 ounces.
Mucil Acaciæ.....	1 ounce.
Ol. Gaultheriæ	20 drops.

With directions that a drachm should be taken twice daily.

Dec. 4.—Another interruption of two weeks occurred, when Mr. W. returned, and the sponge probang was again passed into the larynx.

Dec. 6.—It had been my intention for several weeks to employ tubage of the larynx in this case, as soon as the normal sensibility at the opening of the glottis was sufficiently overcome to allow the introduction of the instrument. But the patient's visits had occurred at such long intervals that I found the parts were not properly prepared. But as Mr. W. had several times expressed a desire to have it used, I resolved on the 6th to make the attempt. The tube was therefore introduced, and a drachm of the nitrate of silver solution, of the strength of fifteen grains to the ounce, was injected into the left

bronchus. No irritation whatever followed this operation. The patient's next call was on the 9th of December. At this visit he expressed much satisfaction with the effects of the injection, stating that his cough and expectoration were both diminished, and he desired that the injection should be again employed; but, for reasons hereafter named, only the glottis and larynx were cauterized, as in previous operations; and the patient engaged to call in two days and have the tubage repeated, but he failed to meet this engagement, and did not return until the 14th—five days afterwards. This was the last visit Mr. W. made at my office; and as most unjust and utterly unfounded reports have been made and widely circulated with regard to the character of this operation and its effects, I shall describe briefly, but minutely and exactly, the steps of the operation. After much experience in catheterism of the larynx, it has been fully ascertained that this operation can be performed with greater certainty, if employed soon, or within one or two days after the opening of the glottis has been cauterized. Hence these applications are usually made once or twice between each operation of tubage.

When Mr. W. came to my office on the 14th, Dr. M. E. Foy, a member of this Academy, was present. He had expressed a desire to see the operation of tubage employed on some of my patients, and when Mr. W. came and took his seat, I remarked to Dr. Foy that it had been my intention to employ the tube for him on that day; but as he had not had an application to the glottic opening for five or six days, I was fearful for that reason of not succeeding, and as I had other patients on whom the tube operation was practiced, I should not use it in Mr. W.'s case, but employ the sponge probang. *This instrument was employed, but the tube was not used that day on Mr. Whitney.* It was never used but once in his case, and that was on the 6th of December, eight days before this last operation. The same probang, the identical instrument, which on some ten different occasions previously had been passed into the glottis and larynx of the patient, was employed, and in precisely the same way, except when the sponge reached the glottic opening the patient partially closed the throat, (a thing occurring every day with nervous or sensitive patients, and, as every operator knows, without the occurrence of any harm to the patient,) by which the progress of the instrument was suddenly arrested, so that it did not enter the wind-pipe at all. It was at once removed, no more force having been used than that which is constantly employed every day in operations on the air-passages. The operation was not renewed, and the patient, after talking a while with Dr. Foy

and myself, and remarking that "the operation hurt him more," or that "he felt it more than usual," (which arose, as I said to him, from the sudden arrestment of the instrument,) he left, with the arrangement that he should return the next day and have the tube employed. These are the precise steps, and the particulars of the last operation. Dr. Foy stood directly by the side of Mr. Whitney, and saw every part of the operation, and can testify, I doubt not, to the entire correctness of this statement. On the 27th of December, as soon as rumor brought to me the report said to have come from the patient, and his physician, or friends, that "the tube was used and had been thrust through the wind-pipe," I addressed a note to Dr. Foy, the purport of which will be sufficiently apparent from his reply, which was as follows:

Letter of Dr. Foy.

No. 106 WEST TWENTY-FIFTH ST., }
New York Dec. 27, 1858. }

DR. HORACE GREEN—*Dear Sir:* In reply to your note of this date, I was present when you operated on Mr. Whitney in your office on the 14th inst. You directed my attention to Mr. Whitney's case.

You passed a sponge probang, saturated with solution of nitrate of silver, into the glottis. The operation was followed by very trifling irritation, not more than I have experienced from having my uvula touched with nitrate of silver.

We had, at the time, a conversation about probangs. You exhibited to me some, brought you by your patients, remarking that the sponge was too large and the curve too great. You showed me that the sponge used on Mr. Whitney was capable of containing half a drachm of the solution.

Your office lad told me that if I required probangs, he could supply me with the same sort you generally use. I mention these trifling particulars, that you may see how vividly the operation is impressed on my mind.

You mentioned Mr. Whitney by name, and the date is fixed on my mind beyond a shadow of a doubt.

I am, dear Sir, yours obediently,

MICHAEL EYRE FOY, *Surgeon.*

P. S.—I desire further to state that nothing but the probang was used.

You did not use a tube. In fact, I never saw a tube used by you or others.

M. E. FOY.

It is reported that the patient returned to his house, complaining of his throat. That night he was taken worse, and died in one week from the day in which he last visited me at my office. Of the *cause* of his death, it remains for the profession of my country to say, after they shall have learned from his attending physicians the symptoms present during his life, and the appearances found at the *post-mortem*, as observed by these gentlemen, for at this examination *neither myself nor any of my friends were present*.

In connection with cases of this nature, Mr. President, are involved questions of great interest to practical medicine. Of the employment of topical medication, or the direct application of nitrate of silver, and medical agents, to the mucous membranes of the air-passages, a practice which at the present day is being everywhere more or less employed; if, I say, it be fraught with danger to the patient; or, if there exist any peculiar conditions of the human system, general or local, in which topical applications, such as I have described as having been employed in Mr. Whitney's case, are likely to be followed with dangerous or fatal symptoms, then, if possible, let these facts be ascertained. For myself, I shrink from no inquiry in which the interests of practical medicine may be advanced. Having performed the same operation as that which was practiced upon Mr. Whitney on the 14th of last December, over 100,000 times since 1845, (as can be shown by my books,) without the occurrence of a single untoward accident, I am quite desirous to know whether the fatal results which have been attributed to it as the cause, have in reality followed this particular operation.

Struggling against some disadvantages, of which the Fellows of this Academy are not wholly ignorant, I have labored more than twenty years to add something to our curative means, in the more successful treatment of a disease which, doubly decimating in its fatality, is still the opprobrium of our profession; and to this same work, whatever obstacles may arise, I am determined to give the remaining years of my professional life.

After hearing this statement, some member of the Academy then inquired of Dr. Green if he had the account of the post-mortem examination.

DR. GREEN replied that he had. It had been furnished him by Dr. Valentine Mott at his request, and he was prepared to read it, if the Academy desired.

DR. PEASLEE thought that, to have a full und erstanding of the case, the immediate history—after Dr. Green ceased to attend on Mr. Whitney—should be given.

DR. GREEN replied that after the last visit at his office, the history of which had already been given, he had not even seen Mr. Whitney, and, therefore, he could not furnish the history; that Dr. Mott and Dr. Beales were in attendance, and could probably give the Academy the desired information.

DR. MOTT said that he had proposed, as had Dr. Beales, that Dr. Green should be called in during the progress of this case, which was not assented to by the family. He was prepared to give the Academy a history of the case from the time he first saw it, but that Dr. Beales was preparing a full account, at Dr. Green's request, which he would present to the Academy, together with the account of the post-mortem. He was, nevertheless, prepared to tell all he knew about it at that time, should the Academy desire it. He wished the truth, though the heavens should fall.

DR. WATSON thought the history of the case should precede the account of the post-mortem, and inquired of Dr. Mott if this history would probably be ready by the next meeting of the Academy.

DR. MOTT said it would.

DR. WATSON then moved that Dr. Mott be requested to give the history of this interesting case at the next meeting of the Academy.

It was a late hour when the Inspectors of Election finished counting the ballots.

There was no complete election for the other officers, and by vote further balloting was postponed to Wednesday, January 19, the next meeting of the Academy.

A special meeting of the Academy of Medicine was held January 19, for the purpose of completing the election of officers for the current year, and the year next succeeding, there having been a failure at the previous meeting to elect the entire list by three Vice-Presidents, one member of the Committee on Ethics, two members of the Committee on Education, and one trustee. The attendance was unusually large. Dr. Batchelder, the President for the past year, occupied the Chair. The list of officers, as thus perfected, is as follows:

President—Dr. John Watson.

Vice-Presidents—Drs. Joel Foster, S. C. Foster, and Gurdon Buck.

Recording Secretary—Dr. T. G. Thomas.

Corresponding Secretary—Dr. J. W. Greene.

Treasurer—Dr. J. O. Pond.

Trustees—Drs. Kissam, Smith, Anderson, Wood, and Hubbard.

Committee on Admissions—Drs. Henschell, Minor, Purple, Van Kleek, and Bulkley.

Committee on Ethics—Dr. Wood, Smith, Bulkley, Ogden, and Warren.

Committee on Medical Education—Drs. Wood, Clark, Smith, Hayward, and Peaslee.

Having transacted all the business for which the special meeting was convened, the members reorganized to hold their semi-monthly reunion. Dr. Batchelder, the retiring President, delivered a brief valedictory, in which he glanced cursorily at the leading events in the history of the Academy during his term of office, and expressed his warm sense of the uninterrupted good feeling and friendly relations which have characterized his intercourse with all the members.

DR. KISSAM introduced Dr. John Watson, who, in conformity with the recent modifications of the Charter, is elected for two years.

DR. WATSON read an introductory address, in the course of which special allusion was made to the question of sanitary reform, and the wish was expressed, not only that municipal offices, created to preserve the public health, be administered by competent medical men, but that the position of health officer to this port be not in future conferred on some small politician selected from the rural districts, as unknown to science as to fame. The paper abounded in practical suggestions. On motion of Dr. Detmold, the Academy took up the subject in order for the evening's discussion, viz.: The reading of the case of Mr. Whitney by Drs. Beales and Mott.

DR. HORACE GREEN, at the suggestion of the President, repeated in substance his statement made at the last meeting of the Academy.

DR. FOY, who was present with Dr. Green on the 14th of last December, the occasion of Mr. Whitney's last visit to him, and of the occurrence which has given rise to so much comment, confirmed Dr. Green's narrative in every particular. The irritation after the passing of the probang into the throat was not greater than what he himself (Dr. Foy) had suffered from having the uvula touched with nitrate of silver. When Mr. Whitney left the office he did not appear to be suffering under any inconvenience.

After Dr. Green had repeated in substance the statement already given, Dr. Beales was called on to submit his and Dr. Mott's counter-statement, and which he prefaced as follows:

"Before I read this statement, I wish to remark that I feel myself

in a most unusual and in an extremely disagreeable situation. I wish to say that this is the first time of my life in which I have ever engaged in a controversy with any of my professional brethren. (A member, *sotto voce*—‘There is no controversy here.’) I am sure you will bear me witness that you have never known me to enter into a professional dispute of any kind. In point of fact I have always carefully and sedulously avoided it; and if, on the present occasion, I shall be found to take a position antagonistic to Dr. Green, I have abundant evidence to prove to you that it is not voluntarily assumed, but it has been forced upon me. In the statement of the case which I am about to make to you, I am sorry to say that there are some expressions in the commencement which I have put in with very great reluctance; but, owing to the different statements that have been made, it has been felt necessary to put these in, that you may have a just appreciation of the state of the feeling of the patient at the time. I think it justice to myself to state, also, that a *verbatim* copy of this statement was furnished to Dr. Green yesterday morning, so that nothing should take him by surprise, and that he has been in possession of the *post-mortem* examination for three weeks, and this although it has been insinuated in the papers that that statement has been kept back.

DR. BEALES then read the statement signed by himself and Dr. Valentine Mott, and the record of the *post-mortem* examination, which was signed by them and Dr. Alexander B. Mott conjointly.

Dec. 14, 1858.—About one in the afternoon I was called to see Samuel S. Whitney; I found him surrounded by several members of his family, in a state of the most intense excitement, suffering, and terror; in answer to my inquiries as to what had happened, he answered, “Sit down, Beales, and I will tell you the truth; I was such a fool as to go to Dr. Green to be operated upon, and the d—d villain has killed me.” His countenance was pale and haggard, and had all the appearance of a man whose nervous system had received a severe shock; his breathing was occasionally irregular, and almost spasmodic, coughing almost incessantly, and speaking with great difficulty and pain, in a hoarse and unnatural tone of voice; his skin was cold and clammy, and covered with perspiration; the pulse was extremely frequent, feeble, irregular and intermittent; he was excessively restless, not remaining in the same place more than a few minutes at a time; complaining of intense pain in the region of the larynx, shooting through to the cervical vertebræ, and down the course of the trachea to the chest; he kept grasping the larynx, and reiterating every few minutes that he

was murdered; I endeavored to calm the excitement of the patient, and tried to examine his fauces and throat, which appeared in a state of great inflammation; I discovered no lesion, as, in fact, on account of the pain and terror of the patient, the examination was necessarily very imperfect, as he would scarcely allow the spoon to touch his tongue, and I concluded, therefore, to defer the examination till he should become more quiet; I gradually ascertained, partly from the family and partly from himself, that he had been several times to see Dr. Green; on the first occasion his tonsils had been amputated; on a subsequent occasion, ten or twelve days previously, (the exact dates were not told to the relator,) "a hollow tube had been passed into his lungs, and about a teaspoonful of solution of nitrate of silver had been injected into them by touching a spring at the top of the tube." Whether this was done more than once the relator does not recollect to have been stated. On the 14th of December Mr. Whitney breakfasted with his family, appearing to be in his usual health; he afterwards went to Dr. Green's office; "the doctor passed an instrument into his throat, and finding some obstruction, he pushed the instrument with some force; he (Mr. W.) felt something give way, immediately experienced severe pain about the top of the windpipe, and told the doctor he had hurt him;" he returned home, informed the family of what had occurred, and I was called as before stated. 1 P. M., I saw him with the symptoms and in the state previously described; it was evident that, under these circumstances, the only indications that could be followed were to rally the patient's strength, to produce some reaction and to moderate the local irritation in the fauces; to this effect I ordered him to be immediately put in bed, bottles of hot water to the feet, with sinapisms to the extremities and chest, and flaxseed poultices to the throat; a teaspoonful of chloric ether or volatile tincture of valerian in water occasionally, till reaction should be established, and a mixture composed as follows: R. Ol. amygd. dulc. ℥ss., Syrup. papav. ℥ss., Mucilag. G. acac. ℥ij., Liquor. potass. gtt. xx., a dessertspoonful to be slowly swallowed occasionally. For nourishment he was allowed arrowroot and flaxseed tea.

Dec. 14, 7 P. M.—Is suffering severe pain, described to be in the larynx, down the course of the trachea to the chest, and round to the cervical vertebræ; pulse 112, feeble and irregular; still excessively restless; other symptoms are about the same; insisted on my remaining with him all night. R. Vin. antimonial ℥j, Solu. sulph. morphia. gtt. xl., Syrup. gummi ℥ss., Aq. destil. ℥iiss., a dessertspoonful every four hours; to inhale the vapor of infusion of flaxseed and poppy heads.

Dec. 15, 3 A. M.—They called me, as they observed the face to be swelling; I found extensive emphysema all round the neck, and partially in the face, rather more noticeable on the left side; he had continued exceedingly restless, scarcely dozing for a few minutes, breathing very irregular; pulse 106; urine scanty, very high colored, and turbid. Continued the same remedies and nourishment.

1 P. M.—Heat of surface more natural; scarcely any pain in the chest, emphysema very much increased round the throat and face, and extending down the chest; has not slept; has taken scarcely any nourishment, on account of the pain in swallowing; could not continue the inhalations, although they rather relieved him temporarily. Anodyne liniment to be applied to the throat and chest.

8 P. M.—Dr. Valentine Mott saw him, in consultation with me. Is decidedly worse; emphysema very much increased; neck and face enormously swollen; it has extended all over the chest, but lower down on the right side; breathing somewhat labored; pulse very feeble, irregular, and 112; skin is again covered with clammy perspiration, and about the neck and chest of a purplish erysipelatous appearance; does not particularly complain of pain, except on talking or swallowing. Dr. Mott gave a very unfavorable prognosis. Continue anodyne, and take alternately a teaspoonful of ammoniated tincture of valerian.

Dec. 16, 6 A. M.—Upon the whole has passed a more comfortable night; symptoms are all a shade better; the emphysema rather less in the face, but the throat and the chest are enormous, the mammæ resembling those of a stout nursing woman. Continue wine whey.

1 P. M.—With Dr. Mott. The emphysema extends to Poupart's ligament, on the right side; but only as low as the umbilicus on the left; cough less frequent, except when he swallows; pulse 108, and rather firmer. Same remedies and nourishment.

9 P. M.—With Dr. Mott. Is not so well; emphysematous swelling increasing; cannot open his eyes till the air is carefully pressed out of the lids; chest and abdomen still more swollen; pulse more feeble, 122, although he had taken nourishment more freely. Same remedies.

Dec. 17, 6 A. M.—Has slept more during the night, sometimes for nearly an hour at a time; has taken more nourishment, but there begins to be considerable mucous secretion, which interrupts his respiration, and gives him great trouble to expectorate; pulse very irregular and feeble; the slightest movement increases its frequency; it averages about 108.

1 P. M.—With Dr. Mott. There is no observable change in the symptoms, although he says he feels more comfortable; several attempts

have been made from time to time to examine the fauces and adjacent parts, but the excessive swelling rendered them useless.

9 P. M.—With Dr. Mott. There is again a slight lull in the symptoms, excepting the pulse, which is extremely irregular at 108; same remedies.

Dec. 18, 6 A. M.—Has passed the best night since the attack; there is a decided improvement in all his symptoms; emphysema slightly subsiding; pulse 90; is rather more hopeful.

1 P. M.—With Dr. Mott. We consider him decidedly improving; all the symptoms are milder; he is slightly flighty from the effects of the anodyne.

9 A. M.—Is not so well again, without any other apparent cause than he would get up during my absence and sit for about an hour in a chair; the pulse is more frequent and irregular; the difficulty of swallowing is also evidently increasing, the attempt to do so bringing on coughing, partial strangulation, and some regurgitation of the fluids.

Dec. 19, 6 A. M.—Passed a very bad night, principally owing to the great increase of the mucous secretion, that keeps him almost constantly coughing and expectorating, which he does with great difficulty and suffering; the pulse very frequent, feeble, and excessively irregular; take half the dose of the anodyne at a time:—(R. Ammon. carbonat, grs. iv.; Emuls. amygd. dulc., \mathfrak{z} i., every four hours, in place of the Tinc. valerian. ammoniat.); although it is certain that there is some serious lesion in the vicinity of the glottis, yet it is utterly impossible to ascertain the state of the parts; the emphysema has rather subsided about the upper part of the face, so that he can partially open his eyes.

1 P. M.—With Dr. Mott. Has slightly rallied, but the mucous secretion is increasing; the cough more frequent, and difficulty of swallowing greater; bowels have not acted for three days; continue remedies; injection; give as much nourishment as possible.

9 P. M.—All his symptoms much worse; pulse more feeble, 120; difficulty of swallowing, with the coughing and strangulation very much increased; consequently has not been able to take so much nourishment.

Dec. 20, 6 A. M. Has passed a very bad night; breathing labored, and all the difficulties of swallowing, &c., increasing; the emphysema rapidly disappearing from the face and throat; abdomen distended and tympanitic; injection did not operate; a tablespoon full of castor oil.

1 P. M.—With Dr. Mott. All the symptoms gradually becoming more serious.

10 P. M.—Is very much worse in every respect; respiration excessively labored; the slightest attempt to doze threatens suffocation from the accumulation of mucus; can with difficulty be induced to swallow; the oil operated twice, and he was excessively exhausted; pulse extremely feeble and irregular, 126; he is evidently sinking.

Dec. 21, 7 A. M.—During the night he became rapidly worse; did not swallow after 2 A. M., and died rather suddenly at 8 A. M., partly from exhaustion and partly by asphyxia.

Note.—A number of trifling circumstances, such as the varying appearance of the urine, the continual slight changes in the symptoms, &c., as not throwing additional light on the case, have been omitted, in order not to make the statement too tedious.

J. C. BEALES, M. D.

As far as relates to this case, from the time I was called in, it is a faithful narrative.

VALENTINE MOTT, M. D.

I certify that this is a faithful copy of the original.

J. C. BEALES, M. D.

NEW YORK, Jan. 18, 1859.

Post Mortem of Samuel S. Whitney.

NEW YORK, Dec. 22, 1858.

Thirty hours after death nothing peculiar in the appearance of the body. Rigor mortis quite moderate. On making an incision from under the chin, in the mesial line of the sternum, it was remarked that the anterior projection of the thyroid cartilage was more than ordinary. Directly as the knife divided the deep cervical fascia on the left side of the thyroid cartilage, pus issued out; a little further division opened into a cavity, containing pus, about the size of a large hen's egg, and extending a little in front of the pharynx, and downward behind and below the thyroid cartilage. At the upper and posterior part of this abscess there was an opening into the pharynx, large enough to admit the end of the forefinger. This abscess was lined by a large quantity of destroyed filamentous tissue, hanging from different parts of it like wetted tow. The entrance into the œsophagus immediately below this was perfectly sound, internally and externally. The larynx was now laid open from behind, and at the first glimpse a red point about the size and shape of a grain of wheat, on the left side, a little below the left chorda vocalis, and running longitudinally, led us to exclaim, there is the point of laceration of the mucous membrane, by which the air has escaped into the cellular tissue

to constitute the emphysema. On close inspection, and wiping the part with a sponge, no abrasion or aperture could be discovered. Every other part of the larynx and trachea, as far as removed, presented on its internal surface a perfectly normal appearance. Indeed, we all remarked, that we had never seen a larynx and trachea more natural and healthy. We next concluded to have a look at the bronchi and lungs. Perhaps about an inch above the division of the trachea, the most beautiful vermilion redness that we ever saw on a mucous surface commenced and extended into each bronchus, but greatest in the left, and extended down each lung. Over this peculiar redness there was a cloudy shade, which vanished after a short exposure to the air. On opening the pleura, the upper lobe of the left side, at first glance, seemed covered with white thick pus. But, on close examination, it proved to be soft, strumous-like fibrin, easily rubbed off. This, on the side and posterior part, connected that lobe in patches to the pleura costalis. These imperfect adhesions were easily broken down with the fingers. The whole of the upper part of this lobe was very red and solid—hepatized. Just at the root, or at the commencement of the bronchial ramifications, there was an open cavity, about the size of a small black walnut, of a reddish brown color, and irregular villous surface, as though a slough had separated. At the upper and anterior part of this cavity there was a small opening through both pleuræ. This lobe was cut into in different directions, but no tubercles could be found. The lower lobe was perfectly healthy. The redness of the mucous membrane of the right bronchus extend to the lung of that side, but the three lobes were perfectly normal. There were no old adhesions on either side of the cavity of the chest. Some little appearance of the emphysema remained.

(Signed,)

VALENTINE MOTT, M.D.

J. C. BEALES, M.D.

ALEX'R B. MOTT, M.D.

DR. BEALES then addressed the President, and said that, with his permission, he would make a few remarks illustrating this case.

The President nodded assent, and Dr. Beales spoke to this effect:

During the number of years that I have attended Mr. Whitney's family, I have not known Mr. Samuel Whitney to be seriously ill, so as to be confined to his bed; but he has for a long time been subject to various derangements of the digestive organs, such as want of appetite, torpidity of the bowels, deficiency of the bilious secretions, and occasionally a bronchial cough. For these I have frequently prescribed for him; but during the whole or greater

part of the last year (as I have been informed by the family) he placed himself under the care of a homœopathic physician, so that, with two or three trifling exceptions, I was not called on to prescribe for him until the present occurrence. Toward the end of October his sister informed me that her brother was very low-spirited and depressed, as some physician had informed him his lungs were very much affected. He wanted me, therefore, to examine him, but did not want me to know that he had consulted any other physician. I was not told who it was, nor do I know to this day, although I now presume it to have been Dr. Green. Sir, I wish to state that I appreciate the stethoscope as highly as most men; I believe it, as most others do, one of the greatest discoveries in our profession, but I frankly confess that I do not believe in its infallibility, even aided by percussion. I do not believe that any man can at all times discover one or two, nor even a few tubercles, scattered about the upper lobes of the lungs. I am sure that every man, if he would frankly tell the truth, would admit that he had occasionally been mistaken. For myself, I do not pretend to any extraordinary skill with this instrument, but, independent of my private practice, I have been for fifteen years examiner for various life insurance companies, and therefore I constantly make use of it, and ought to know something about it. Now, under these circumstances, well knowing the opinion of the other physician, I examined Mr. Whitney with all the care and accuracy of which I am capable; I declared to him that I could not discover any tubercles in his lungs, and that I did not believe that any existed. [No notes of the examination.] Now, Sir, on turning to the report of the post-mortem examination, it will be seen that a "cavity" was found, but not a single tubercle. I will not, of course, assert that such a thing as a tuberculous cavity never exists without the presence of other tubercles, but I do say, that it is a most rare and exceptional circumstance; but I wish to make a few remarks on this "cavity." Was this a *tuberculous* cavity? It neither contained any kind of fluid, nor was it lined with lymph, nor the slightest appearance of false membrane, nor were there any remains of *tuberculous* deposit, and I at least have never seen a tuberculous cavity similar to it—in fact, although that word was used in the report as probably most readily occurring, it could scarcely be justly so called; it was rather a shallow depression or scooping out of the actual apex or superficies of the lung; its surface was not like that of a "cavity," but rough and irregular, and had that peculiar appearance, that all present remarked it looked as though a slough had separated. Communicating with it

was a perforation in the pleura, sufficiently large to admit the little finger of the gentleman who had operated; all other appearances about the lung were of the most recent disease, the hepatization was in its earliest stage, and the adhesions spoken of were so recent that the folds of the pleuræ were, more properly speaking, glued together, than adhered. We did not discover the slightest sign of chronic disease in or about the lung; and so striking was this fact, that Dr. Mott told the family, after the post-mortem examination, that we had not seen any disease that might not have been produced within a week. But Dr. Mott is here to speak for himself. Dr. Green says that the epiglottis was thickened and its border whitened with a line of erosions. At the post-mortem, this part was very minutely and carefully examined, and found to be extraordinarily healthy and free from the slightest vestige of disease. Under all these circumstances, I am forced to believe that Dr. Green erred in his diagnosis, and that these various operations were unnecessary and uncalled for. I do not say that the operation of tubing caused the disease in the lung, because I confess myself ignorant of the effects of nitrate of silver on the substance of the lungs; but for the operation itself, I do not hesitate to express my conviction that it is at all times attended with extreme peril and risk of the patient's life. I have never heard of or seen a single case of phthisis where it has effected a cure, and therefore I believe it to be perfectly unjustifiable. I believe that a slough or eschar was formed at the apex of the lung, involving the pleura, and which, at the time of the unfortunate occurrence, became separated by the violent exertions and spasmodic coughing—the air percolated into the cellular substance, and produced the emphysema which formed so prominent a symptom. I will now leave this part of the case, and go on to that which was, after all, undoubtedly the immediate cause of the death of the patient. I mean the lesion of the pharynx. By referring once more to the post-mortem examination, it will be seen that there was a lacerated opening in the pharynx communicating with a large abscess. I have heard it rumored—and, indeed, it has been stated in the public papers, especially in an article in the *Tribune*, which is evidently from a suspicious source—that this abscess was chronic. Insinuations were made against Dr. Mott and myself in regard to it. If, Sir, the friends of Dr. Green have given currency to this idea, or intend in any way to suggest it, then has the Doctor ample reason to say "Defend me from my friends." It appears by his own statement, that for two months previously to his death Mr. Whitney was under the professional care of Dr. Green; for my own

part, I solemnly declare, I have never prescribed for nor heard him complain of his throat. Early in October, the Doctor cut out one of the tonsils. Did the chronic abscess then exist? if so, how was it that the Doctor did not discover it? He several times applied the sponge and probang: did the abscess then exist? On the 8th of December Dr. Green states that he passed the tube down the trachea. This, at all events, whatever we may think of the operation itself, requires a careful observation of the parts: did the abscess then exist, and the Doctor not discover it? But, Sir, on the very day of the last unfortunate operation, Dr. Green was showing to Dr. Foy how he applied the sponge to the larynx, and showed why it only entered the pharynx—of course the organs were closely observed: how was it that the Doctor did not diagnose this chronic abscess? Why, Sir, the reason that Dr. Green did not see this chronic abscess, was because it did not exist. Sir, I do not believe that among all those who are now listening to me there are two opinions. At all events, to my mind, the evidence is irresistible, that in the last unfortunate operation, on the 14th of December, the pharynx was accidentally lacerated by the probang; the first effects, as we have seen, were excessive irritation of the parts, and a severe shock, increased, no doubt, by the nervous temperament of the patient, and his conviction that the injury was fatal. Afterwards, doubtless, portions of the various foreign bodies he attempted to swallow, food and medicine, were forced into the wound. After three or four days, a sloughy abscess began to be formed, which, gradually increasing in size, formed a mechanical obstruction to swallowing; by pressure on the adjoining parts, prevented the epiglottis from properly closing, and produced the strangulation and regurgitation which we have noticed, till at length the unfortunate patient sank from exhaustion and asphyxia. I wish now, Sir, with your kind permission, to make a few remarks with respect to the post-mortem examination. I perceive by statements in the public papers, the source of which can easily be understood, that we are censured for not having Dr. Green present. I need not say that, as the case progressed, the excitement and feeling in the family did not diminish. I do not think that on this point I have the right to judge Dr. Green; he doubtless did what he thought right in the matter; but had he, by sending inquiries, shown any sympathy with the misfortune of the family, it would have afforded an occasion to Dr. Mott and myself to have introduced him; that he did not so act, was repeatedly remarked by many of the family. Now, under these circumstances, it was no pleasant thing to ask permission of the

family, and I frankly allow we did not; but, for myself, I solemnly declare, that I went to that examination without the slightest idea of criminating Dr. Green, but with the earnest desire to ascertain the nature and extent of the injury. But let me ask, What do these insinuations mean? I will tell you how the post-mortem examination was arranged: I asked Dr. Mott who he would wish to perform it; he replied, his son, Dr. Alexander; and on the day of that operation I was introduced and spoke to that gentleman for the first time in my life. The insinuations to which I have alluded either mean that we were not competent for the examination, (if so, let the truth be told,) or that the examination or report was distorted to meet particular views. On this point I shall merely remark, that Dr. Alexander Mott has never, till to-night, heard me say a word as to my views of the case. I do not know his. We have never interchanged a word on the subject. Both he and his father hold such positions in the profession and society, as ought to place them beyond such calumnies. As for myself, those who know me, Sir, will not, I am proud to believe, imagine me capable of misrepresenting solemn facts, for any purpose whatever; and this is all, Sir, I think it needful to say in answer to these unmerited and disgraceful inuendoes.

DR. VALENTINE MOTT followed, strongly substantiating the post-mortem examination, which, he said, was prepared by himself, and controverting Dr. Green's theory of the case.

DR. GREEN said: I do not rise, Mr. President, to make any speech. So far as I am concerned, I am willing to leave this whole subject to my professional brethren connected with the Academy, and to the profession throughout the whole world. In the first place, however, I may be allowed to say that there are some insinuations to which Dr. Beales has referred, which are improper and groundless. It has been inferred that I have sought to keep this *post-mortem* examination from the public. I should have been very glad at any time to have it published, as its publication would have saved a great many persons from having exposed themselves to heavy damages for libel, for it shows that there was no perforation, and no injury done to Mr. Whitney at the time; but that was not my reason for withholding it. I came before you, gentlemen, and stated the case candidly. It was at the urgent request of my friend Dr. Mott, (for I shall so consider him, notwithstanding all this,) that nothing should be brought before the public in relation to this, except through the Academy, that I refused to give this *post-mortem* over for publication. I have his written request here, and I offer to read it if he will allow me. Since the last meeting of

the Academy I have been visited by, I presume, no less than ten editors, desiring me to surrender that *post-mortem*; and there are some of the gentlemen here present to whom it was positively refused. I declined also to give it, at the advice of my friends, and in conformity with my own feelings, and these gentlemen of the Press can testify whether I did not so refuse. If I am permitted, I will read from Rokitansky's *Pathological Anatomy*—an authority on the subject which no one here will question—a description of one variety of tuberculous cavity, which, I think, will hardly be found to concur with the inferences of the gentlemen by whom this *post-mortem* examination was made. At page 103 of the Sydenham Society's edition, he says:

"*Infiltrated tubercle*, unlike interstitial tubercle, is actually deposited in the cavities of the air-cells. It arises from a more or less extensive croupous pneumonia, whose products, under the influence of a tuberculous infiltration, becomes variously discolored and converted into yellow tubercle, instead of being absorbed or dissolving into pus. Hence tuberculous infiltration presents the form of *hepatization*, induced by a tuberculous product." * * * *

And again, at page 112:

"The contents of tuberculous cavities present many differences. Sometimes, and especially when the infiltrated tubercles begin to soften, these caverns contain a yellow and somewhat thickish pus; more frequently, however, they contain a thin, whey-like fluid, (tuberculous ichor,) in which may be observed numerous grayish and yellowish, friable, cheesy, purulent flocculi and particles, whose quantity, however, is not in itself sufficient to explain the profuse expectoration which so often occurs in phthisis. This fluid is often of a grayish red, or reddish brown—(mark the similarity of the phrases here and in the gentleman's report)—or chocolate color, from the admixture of blood; or of an ash or blackish gray color, from the pigment which it takes up during the softening of the tissue. Moreover, the caverns sometimes contain smaller or larger fragments of lung, resembling the parenchyma contained in their walls, and chalky concretions are occasionally found in them."

In the next place, I would say that the inference is left to be made by the members of the Academy, that this sloughing was produced by an injection administered on the 6th of December, between which and the date of Mr. Whitney's death (on the 21st, I think,) an interval of fifteen days elapsed. Now, every gentleman of the Academy who understands what they are now doing in France, knows well that during its last five sessions the French Academy has been occupied

in discussing this very subject of injection and cauterization in diseases of the air-passages, admitting unanimously that this operation is not only performed with safety, but that great beneficial results follow therefrom. And within the last few months large numbers of young and delicate children—1, 2, 3, 4 and 5 years of age—have been treated for croup by injection with nitrate of silver into the larynx, by such men as MM. Trousseau, Loiseau, Bouchut, and others. Professor Bennet, of Edinburg, in describing his use of the introduction of the tube and injection into the lungs, says:

“My period of attendance on the clinical wards having expired in January, it was not until last May that I had an opportunity of making a series of observations on this subject. I was then fortunately assisted by Prof. Barker, of New York, who showed me the kind of catheter he had seen Dr. Green employ, and demonstrated the manner in which the operation was performed. Without entering into minute particulars, I have only to say that I have confirmed the statements made by Dr. Horace Green. I have introduced the catheter publicly in the clinical wards of the Royal Infirmary in seven patients. Of these, five were affected with phthisis in various stages; one had chronic laryngitis, with bronchitis; and one chronic bronchitis, with severe paroxysms of asthma. In several other cases in which I attempted to pass the tube, it was found to be impossible—in some because the epiglottis could not be fairly exposed, and in others on account of the irritability of the fauces and too ready irritation of cough from pressure of the spatula.

“My experience of this treatment is as yet too limited to permit my saying anything of its permanent effects. In the case of bronchitis with asthma—a female, aged 24—I have now injected the lungs eleven times, at first throwing in two drachms of a solution of nitrate of silver, of the strength of half drachms of the crystalized salt to one ounce of distilled water, and latterly I have thrown in half ounce of a solution of the strength of two scruples to one ounce. She declares that no remedy has had such powerful effect in lessening the cough, diminishing the expectoration, or delaying the asthmatic paroxysms. She breathes and blows through the tube, when inserted four inches below the larynx, and I have been surprised at the circumstance of the injections not being followed by the slightest irritation whatever, but rather by a pleasant feeling of warmth in the chest, (some have experienced a sensation of coolness,) followed by ease to the cough, and a check for a time to all expectoration.

“I think it of importance that these facts should be known to the

profession, as a homage justly due to the talents of a distinguished Trans-atlantic physician, and with the view of recommending a practice which, if judiciously employed, may form a new era in the treatment of pulmonary diseases." [Applause.]

I have only one word more. I never go, unless requested by some one, to see a patient. I did not desire Mr. Whitney to come and see me. He came of his own accord. I treated him legitimately, and, I believe, properly. When he left me and went under the care of another physician, should I lower myself by dogging him, and thus degrade the profession? [Applause, and cries of "Good!"] Never. Had they sent for me, (I having had several cases of retro-pharyngeal abscess, where I have saved the lives of the patients by opening those abscesses,) I would not have hesitated to go. I saved my 2 or 3 patients in this city by opening the abscess; they failed to do so. Why should they not come out as magnanimously as Carmichael did, when, having lost two patients from having overlooked a pharyngeal abscess which was not discovered until after death, he bravely acknowledged it? Dr. Beales has himself described the rage of the family toward me. And how did they meet it? Why was it not lulled at first, as I would have endeavored to do for you, Sir, or for any member of this Academy? [Applause.] Why was not this done by the physician in attendance on the family? I merely ask the question. He has declared that if I had ventured to come near the house I should, in all possibility, have suffered personal violence. This is one reason, perhaps, why, even if I had been called on, I should not have gone. But I would have gone, nevertheless. To these remarks, Mr. President, I wish to add one other. Having understood that a *post-mortem* examination was to be made, several of my medical friends called upon me and urged that either I, myself, or my representative should be present. At length, when the day arrived, Dr. Carnochan, my colleague, said it was injudicious to permit the examination to be made without one of us being there. I deputed him, therefore, to claim of Dr. Mott the privilege of being present. In accordance with this arrangement he drove down in his carriage, but was too late; the examination had already taken place. [Applause, which was immediately put down.]

DR. DETMOLD—I wish this applause to be stopped. I do not think it comes from the members of the Academy, and as there are reporters here, I do not wish to have the fact misstated to the public.

The President expressed his hope that all such demonstrations

would, in future, be abandoned. He called on Dr. Valentine Mott to state his views of the case under discussion.

DR. MOTT said: It is not necessary, in my opinion, that I should give any elucidation of this case. I will confine my remarks especially to the *post-mortem*. It ake it for granted that Dr. Green and all his friends, and indeed every member of this Academy, will do me the justice to state that they believe me. If they do not, I will never show my face here again. What motive could I have had in drawing up this *post-mortem*? It was to arrive at the truth, and my whole object was to state it fairly and impartially. And it is done so. I am willing to answer for it, and I will attest to it at any moment. Some insinuations have been made here (with the newspapers we have nothing to do) that that was a chronic abscess. Mr. President, I have not lived in vain—I have lived long enough to know what an acute and what a chronic abscess is; and I say to this Academy, irrespective of any man, that that was not a chronic abscess, but that it was an acute abscess; and I furthermore say, that any man, knowing the anatomy of the pharynx and the larynx, would say immediately that that abscess could not have been got at by the fauces, so as to have been opened. I know the nature of acute and chronic abscesses about the pharynx, and I know a little, I suppose, about opening them, but I defy any man to say that he could see the situation of that abscess by looking into the mouth. That abscess was situated a little laterally of the left side of the thyroid cartilage, reaching down to where the œsophagus begins. Everybody knows that the œsophagus begins lower. In a state of emphysema who can see far into a patient's throat, when everything is blown up? If I had known there was an abscess there, I should certainly have sought more marked symptoms. I wish it understood that I state here, in the face of this Academy, and in the face of this community, that that was an acute abscess. There shall be no shuffling about this thing; the truth must be spoken, and, as far as I know it, I will speak it. The condition of that larynx throughout was remarkably normal. There was not an iota about it that was at all unnatural. Let no man reproach us for not being vigilant. I say anatomically, in defiance of any man, that that abscess could not be reached, *per orem*, through the mouth. I know patients can be saved, but this one could not be. I defend the *post-mortem*; I defend every part of it; but let no man reproach me for inattention.

THE PRESIDENT—Be kind enough to say whether this was to be considered as, in any way, a post-pharyngeal abscess.

DR. MOTT—It was a post-laryngeal—it was hardly a post-pharyngeal. Laterally, it went a little perhaps to the left side of the pharynx.

DR. DOUGLAS—If this was an acute abscess, and had continued from the first day on which Drs. Mott and Beales saw the patient, why is there not some mention of it in the history of the case? I should like to hear the diagnosis made previous to the *post-mortem*.

DR. MOTT—I drew up that statement, and am answerable for it from beginning to end; and I have nothing to add in connection with it, only what I have said in defence of the nature of that abscess. The moment the neck of this gentleman (Whitney) was exposed, and before a cut was made in it, I remarked to my friends, "That is a remarkably large larynx and trachea." I don't know that I ever saw the calibre of a larynx and trachea as large as his was. The abscess was situated as I have described. I do insist upon it, that there should be no insinuations thrown out in regard to our motives in this matter. As for myself, I had none but the truth, and have none in appearing here but the truth.

DR. DOUGLAS—I wish to call the attention of the Academy to one fact, and that is that no insinuations have been made. There is one point I wish to submit in relation to the *post-mortem*: When a simple incision was made and pus flowed, why should not this have been done before the death of the patient?

DR. MOTT—There was no opportunity to feel for fluctuation. You, as a surgeon, (addressing the Chair,) know very well the condition of an emphysematous patient, and you know that, in such a case, it cannot be discovered. And even if we had discovered the fluctuation, what good would it have done? Could we have cut down into it? The emphysema was so very terrible about the neck and the whole front, that it defied altogether the discovery of the abscess. Good Heavens, gentlemen, can you suppose, for one instant, any of you, no matter how good you are, or how young or how old in experience, that I could not detect fluctuation, under ordinary circumstances, as well as other men?

DR. PEASLEE—There is one point to which I wish to call attention.

DR. JAS. R. WOOD—(Interrupting)—I rise to a question of order. We have assembled here to hear the statements of Drs. Green, Mott, and Beales. We have not come here to act or to sit as an inquisition upon these gentlemen. This is a scientific body. We cannot debate here as to the right or the wrong, the proper or the improper treatment in this case. The gentlemen have appeared here to illustrate their respective positions.

DR. GRISCOM—What is the point of order?

THE PRESIDENT—The gentleman is coming to it.

DR. WOOD—The gentleman will find it out.

DR. GRISCOM—But the point ought to be stated first.

DR. WOOD—This report is the special order for the evening, and I move that the subject be referred to a special committee.

DR. GRISCOM—That is not a point of order.

THE PRESIDENT—Has the case been fully presented yet?

DR. PEASLEE—I rise with no intention of impugning anybody's motives. I rise to come directly to a question of pathology, if that is in order.

DR. WOOD—No, I think it is not. If you have any statement to make in regard to the case, that will be in order.

DR. PEASLEE—It is a construction in regard to the circumstance in which this case originated.

THE PRESIDENT—That is in order.

DR. PEASLEE—In regard to this abscess, I shall agree with Dr. Mott fully, that it was an acute abscess. It has been assumed, and I think we all admit, that if that abscess could have been opened it would have given a good deal of relief to the patient. Now, in fact, that abscess was opened. It had a hole large enough to allow the introduction of one finger, and, in fact, Dr. Beales said, of a second one. Then there comes up the question, why was there not a free evacuation of that cavity? It seems to me that the connection between the lung and the emphysema is very clear. The emphysema came from the lung. That might have been the first, and then came the abscess.

DR. REESE said he wished that the cause of death, as entered on the certificate, be stated.

The President said he believed the statements as to the *post-mortem* examination had not all been presented. Dr. Alexander B. Mott was yet to be heard.

DR. GRISCOM inquired of Dr. A. Mott if he was a member of the Academy.

DR. A. MOTT replied in the negative.

DR. GREEN proposed that the Academy grant Dr. Mott a hearing, as a matter of courtesy. This was acceded to, and a resolution was adopted to that effect.

DR. FOY wished to correct a statement made by Dr. Beales, that he (Dr. Foy) had gone to Dr. Green's office to learn to pass the pro-

bang. It was not a matter of much importance, but he did not want to have it go into the papers. [Laughter.]

DR. A. MOTT.—I was merely requested to make the *post-mortem* examination, and did so, with the best of feeling toward Dr. Green, for whom I have always had the most friendly regard; indeed, I meant to make the examination rather with a view to contradict any unfavorable impression that may have been entertained against him. This opening was a little to the left side of the pharynx and the cavity containing pus and destroyed filamentous tissue, extended back from the larynx and downwards toward the trachea on the left side. It was not a post-pharyngeal abscess, and I do not see how it is possible that destroyed filamentous tissue, such as appeared in this abscess, could arise from a chronic or an acute abscess, to the extent that we found it in this abscess. The cavity in the lung did not appear to me like an abscess, or any cavity that I had ever seen from disease of the lungs; that is to say, from tubercles, or any disease of that description. It had a novel appearance entirely. I have seen very many abscesses of the lungs, and I never saw one resembling this cavity.

THE PRESIDENT.—In what lung was it?

DR. MOTT.—In the upper lobe of the left lung, near the region of the bronchial ramifications. I don't know that I have anything more to say. The facts stated in the post-mortem examination are correct in every respect.

DR. DOUGLAS.—I don't see that any additional light has been thrown on the matter by this last statement. I don't exactly understand what Dr. Mott means when speaking of this abscess.

DR. A. MOTT.—In what respect?

DR. DOUGLAS.—As regards such an amount of disintegrated filamentous tissue not being found in either an acute or a chronic abscess.

DR. MOTT.—I say it is rare to see so much sloughing filamentous tissue in any chronic abscess.

DR. DOUGLAS.—You added acute.

DR. MOTT.—I will repeat it—or hanging from the walls of an acute abscess. I believe the majority of the gentlemen will back me in that assertion.

DR. JAS. R. WOOD.—I rise again to renew my motion to refer this to a select committee. No man here cares one cent about the feelings existing between these gentlemen. It has been brought here for us to deliberate upon in a scientific way. Nobody has been censured in the matter. Why, then, should questions be drawn in, calculated to injure the feelings of gentlemen here? Let the matter go to a com-

mittee, before which each of the gentlemen interested will be heard. I move that a committee of five be appointed, and, Sir, I wish it understood that I will decline to serve on it.

DR. BARKER.—I move an amendment to that. I cannot see the benefit that would arise from sending this subject before a committee. Why not discuss it in the open Academy? I can see no advantage in referring it to a committee, but I do in making it a general discussion, in which we may have the aid of the multitudes of physicians who are daily in the habit of performing the operation in question. Ninety-nine physicians out of every hundred have recourse to it in daily practice.

DR. WOOD said he would accept the amendment, but there was a great many questions to be considered, and investigations to be made, which could only be thoroughly attended to by a committee. There must not, he continued, be a party feeling here. There were several gentlemen present from abroad, and he did not wish to have it said that the applause or the hissing that had been here manifested belonged to the members of the Academy.

DR. REESE.—I again submit that the presentation of this case is not complete on the part of Dr. Beales, until he shall inform us what was the cause of death. I submit whether the City Inspector's certificate is not a part of the record, as stating the cause of death.

THE PRESIDENT.—I believe it is essential.

DR. BEALES.—I will answer the question. The cause of death, as placed on the certificate of the City Inspector, was "effusion into the lungs"—among you gentlemen here, not a very accurate description. There were two reasons, I believe, why that certificate was so returned. One was, I am allowed to say, from kindness towards Dr. Green. It was suggested by Dr. Mott. Finding myself somewhat embarrassed as to how I should make a return to the City Inspector, I consulted Dr. Mott upon the matter. And I will take this opportunity of stating that we have, both of us, (and I can appeal to Dr. Mott to sustain me,) been most urgent that this thing should be left quiet, and that blame should fall upon no person at all. The return to the City Inspector was made with that intention. It may be that scientifically it was not perfectly accurate, but I appeal to Dr. Mott if the intention in so framing it was not to avoid implicating any one.

DR. MOTT.—I am very happy to say that we conferred upon that subject, and a common desire was felt that nothing should be said that might awaken public feeling, or reflect on Dr. Green. I am sure that was enough. It is not worth while for gentlemen to talk in that

way exactly about names being specific. Where is there the medical man who is not occasionally put to his trumps to say what is the cause of death?

DR. GREEN.—I wish to have all the truth brought out, and should be sorry if anything was concealed from delicacy of feeling towards myself. If these gentlemen have not reported to the City Inspector the true cause of death, I will not say they have failed in doing their duty, but I will say they would have done better if they had. I should be glad to have them state the cause of death before the Academy. If they know it, let us have it. Having been accused directly by Dr. Beales of having caused the patient's death, I wished to have that cause stated, and I pressed the wish to him, inasmuch as I am constantly treating patients in the same way. I have desired him to state explicitly in what way I caused death, and he has declined giving me an answer. I would like to know how a treatment in universal use could have been attended with such results.

DR. V. MOTT.—I will say for the edification of the gentlemen present, that we are all at a loss occasionally to find a name that will be swallowed as a disease that has been known. Now, for the information of the Academy, I tell you that that gentleman (Mr. Whitney) died of an abscess in the left side of the larynx, and anterior to the pharynx, and a little posterior on the left side; that was the exact situation of the abscess. Along with that he died with a most splendidly normal larynx and trachea, until within an inch of the bifurcation. He died of inflammation of the mucous membrane of the lower part of the trachea, of prodigious inflammation of the left bronchus, and of a less inflammation of the right bronchus. He also died from a cavity in the lungs, like as if they had been scooped out at the apex. He died of a very vigorous inflammation of half of the upper lobe, with hepatization, and a hole leading through the pleura costalis and pleura pulmonalis, through which he was blown up extensively by emphysema. Now, you have all I have to say on the post-mortem. Say what he died of, if you please? [Laughter]

DR. GREEN again said he was ready to come before this Academy of his compeers, and have the question thoroughly examined. But I have had something to do with committees in this Academy, and, until a report in which I am concerned, that has been lying three or four years on the table, comes up and is disposed of, I would not feel warranted in favoring a reference of this subject to a special committee, as has been proposed.

A motion to adjourn was then put and lost, and all further contro-

versy terminated by the adoption, by a large majority, of a motion to lay the whole subject on the table.

The Academy then adjourned.

The Academy of Medicine met February 2d. DR. JOHN WATSON, the President, in the Chair. The attendance was very large.

When the Secretary had read the minutes of the previous meeting, and the question as to their approval was being put from the Chair,

DR. VALENTINE MOTT rose and said: If I am not mistaken, there is one remark there which, perhaps, on my part, may call for a little explanation.

The PRESIDENT.—Is it reported correctly on the minutes?

DR. V. MOTT.—It is in relation to my having stated to Dr. Green that I wished that post-mortem examination (in the Whitney case) withheld from the public. It is true, I wished the whole to be withheld from the public, and that everything should be kept out of the papers—and even out of the Academy, if possible. I would only state that I did say that, I know, to Dr. Green; and I said so expressly to him, after the post-mortem, and in my own house; for he called on me to know the particulars of it, and asked me to make him a certified copy, and I did so forthwith. I only wish to be understood by the Academy to say that I did request that, as I have stated. Dr. Green can answer for himself.

The PRESIDENT.—Doctor, excuse me. That is out of order.

DR. MOTT.—Well, if it is, I will submit. I thought it was in order to correct the minutes.

The PRESIDENT.—If there is any mistake in the minutes it will be corrected. Is there any motion to amend the minutes?

No such motion being made, the minutes were approved.

DR. MOTT.—May I now amend them, or is it improper?

The PRESIDENT.—It will be in order directly.

The Academy then proceeded to dispose of the business as it came up, according to the established order.

The resignation of Dr. McNulty, as Chairman of the Special Committee on Public Health, was accepted, and it was resolved, on his suggestion, that a new Committee of five be appointed to protect and promote the passage of a bill now before the Legislature for the reorganization of the Health Department of this city.

DR. GRISCOM avowed that that bill had been framed by him, and said that the Senatorial Committee to which it had been referred was ready to report favorably on it.

Unfinished business was now declared to be in order.

DR. MOTT again rose, and said he did so merely for the purpose of having the minutes corrected, as he thought they ought to be. Dr. Green, he repeated, had called on him at his house for the purpose of knowing what the post-mortem appearances in Mr. Whitney's case were. He (Dr. Mott) told him. Dr. Green requested of him a copy of the statement, or an account of the post-mortem, which he promised to him, and he faithfully performed that promise. He dare say that he (Dr. Mott) said at the time that he wished that it would not go into the papers, and that he thought if any use was made of that, or anything connected with the case, the Academy was the appropriate tribunal to go before. He knew perfectly well that he had a motive in making that request, and he knew that he himself requested Dr. Green, at that moment, not to have anything in the papers in relation to that distressing case, because he believed then, and he still believed, that if no indiscretion had been committed in that respect, this case would have passed away *sub silentio*, in the course of a few days. But it had gone out, and as it had gone out he wished the minutes to be so corrected as to show that Dr. Green had called on him, and that he (Dr. Mott) had given him the post-mortem appearances. Whenever the appropriate time arrived, he should have something further to communicate on the subject.

THE PRESIDENT.—The subject is now in order.

DR. MOTT.—Is it in order without adopting a motion to take the matter from the table?

A member moved that Dr. Mott be requested to proceed.

DR. MOTT.—If there is any other business that will not occupy the whole evening, perhaps you had better call it up, for the reason that I see Dr. Beales is not here, and, as he is a *particeps criminis* in the matter, I should like him to be present.

In accordance with Dr. Mott's wishes, the matter under the head of unfinished business was temporarily postponed, and in the meantime

DR. JOHN O'REILLY read a paper on the Connection of the Nervous Centres of Animal and Organic Life.

A resolution was adopted referring to the Council, with power, so much of the President's address as relates to the establishment of a bulletin of the Academy.

DR. BEALES having arrived in the interim, the President announced that Dr. Mott's proposed remarks were now in order. The matter was accordingly taken from the table, by resolution.

DR. MOTT then said: Mr. President, as verbal communications are apt to be misconstrued, and sometimes misrepresented, I thought

it would be better to commit to writing what I have to say on this distressing subject.

He proceeded to read as follows:

GENTLEMEN: I have endeavored through life to make it my rule of action, "To do unto others as I would that others should do unto me." This desire, together with my personal esteem for Dr. Green, with whom I have been on terms of most friendly intercourse and correspondence for years, will explain, and, I trust, excuse to the public my unwillingness to give an opinion in the late Mr. Whitney's case, other than could be inferred from my *post-mortem* statement read at the last meeting of the Academy.

Nothing but a sense of justice to myself and others concerned in this melancholy affair induces me now to give to the Academy my entire and unbiased view on the subject.

At the same time I avail myself of the opportunity to contradict the untruths so industriously circulated by Dr. Green's friends with regard to Dr. Beales, my son, and myself.

Forbearance, beyond a certain point, ceases to be a virtue, and at this point I feel we have arrived. It therefore becomes my duty to defend my character against the unjust inferences drawn, and the false assertions made by the parties above alluded to.

In the first place, then, because Dr. Green was not called in to assist in the treatment of the patient during his illness, or invited to witness the *post-mortem*, it is inferred that Dr. Beales and Dr. Mott prevented it.

And it is furthermore stated that one member of the family desired his presence. The inference and the assertion are alike untrue, as the accompanying letter from the family will prove.

(The letter lies on the table; it is not necessary for me to read it; you will take my word, probably, for it, in this as well as in other things, which I know will pass muster. This letter is from the family, stating that they were perfectly satisfied with Dr. Beales and myself, in every part and circumstance connected with the case, and that on no account could they have admitted Dr. Green to participate in anything connected with his illness or his death. There it is, signed by the whole family. Therefore the statement in the public prints now floats lightly on the water.) After this interpolation, Dr. Mott continued to read:

The excited feelings of the family were such as to preclude the possibility of urging Dr. Green's attendance. Nor can it for a moment be imagined that such a wish could have been entertained by *one* of

the immediate relatives of a man *who* throughout his illness to the *day* of his *death* persisted that he was suffering and dying from the professional treatment of Dr. Green.

To say that a correct diagnosis was not made is idle and ridiculous; and the assertion, *that had* the *abscess* been opened his life might have been spared, is equally absurd.

It was evident that some lesion or injury did exist, to account for the extensive emphysema, but where the injury was no man could tell until after death. The tumefaction, from the extensive diffusion of air through the cellular tissue, rendered any satisfactory inspection of the throat within or the neck without impracticable.

The abscess, or rather cavity, contained very little "*pus*" at the *post-mortem*—enough only, had the patient's life been prolonged, to have aided in throwing off the large quantity of sloughy, cellular membrane, which hung like "wetted tow" within the cavity, and with which it was mostly filled. This, with the lacerated opening into the pharynx, and the serious lesion of the left lung, would lead to the belief that some irritating substance or fluid had been introduced.

With regard to the situation of the abscess or cavity, I again assert it was such as to forbid the idea being entertained by any one acquainted with surgical anatomy that it could have been seen by any examination from within the mouth, or felt externally by the most careful manipulation upon the neck. Of the facts surely those who were in constant attendance on the case ought to be the best judges.

I feel as if the experience derived from 53 years of practice, together with my duties as Professor of Surgery during that time, ought at least to entitle me to the confidence of a public under whose eye and in whose service my professional life has been spent; and I am willing to leave it to that public to decide, from their knowledge of me, whether I am capable of drawing up a *post-mortem*, the principal object of which would be to heap censure upon Dr. Green, or on any other man. All that is required in a *post-mortem* is a plain and full statement of the case. Such a statement I furnished to the Academy at the last meeting, and now add my solemn testimony to its truth.

I regret that more is called for, and that I am compelled to give my opinion also, which is, from the best of my belief, that Mr. S. Whitney died in consequence of the treatment to which he had been subjected previous to the attendance of Dr. Beales and myself.

The PRESIDENT—Gentlemen, if there be any new facts in connection with the case, now is the proper time to bring them forward. I will just say, however, *in limine*, that nothing but facts will be admitted.

DR. GREEN—Mr. President, I have some facts to state.

DR. MOTT—Mr. President, one moment, if Dr. Green will allow me.

DR. GREEN—Certainly.

DR. MOTT—The letter it is perhaps not necessary to read I have it here, if the Academy wish to hear it. In addition to that, my son made, with some care last night, a preparation with a view to illustrate the localities of this thing, and it will be produced if the Academy thinks it would be benefited or satisfied by seeing it. If not, we will proceed as the Academy sees fit.

A member moved that the letter referred to by Dr. Mott be read. The motion was seconded and carried.

DR. MOTT then read the following letter:

“NEW YORK, *January 24, 1859.*

“We hereby certify that we have carefully read the statements made by Drs. Mott and Beales, relative to the illness and death of the late Samuel S. Whitney, and, as far as we have respectively seen and are capable of judging, they are perfectly true and faithful; and furthermore, that we have, none of us, expressed any wish or desire that Dr. Green should be called in to see him. We also declare that we have the fullest confidence in Doctors Beales and Mott, and believe that they discharged their duty, doing everything that it was possible to have done.”

This, he said, was signed by the father of the gentleman, a very aged man, more than four score; his wife, Mrs. Whitney, was too feeble and she did not sign it, but it was signed by all the other members of the family, by Mr. Ferdinand Suydam, Mr. John Dorr, Emeline Dorr and Emeline Whitney Phoenix—all the family with the exception of one surviving son.

DR. BRONSON—Is that all the letter? Without any disrespect, it is not all that was stated to be in it.

PRESIDENT—That is all that is in order now.

DR. GREEN—Mr. President and Gentlemen of the Academy of Medicine: I regret exceedingly that Dr. Mott should have made that last declaration. The high respect which I have had for that gentleman, and the love which I have felt for him as the oldest member of the surgical profession of New York, have impelled my feelings from beginning to end in his favor, and I have been determined that I would bring nothing up, so far as I was able, that should have a tendency in any way to injure his feelings, or bring discredit

on the course he has pursued. I therefore deeply regretted, indeed, to hear him make that last statement, because it has not been and it cannot be substantiated that my treatment was the cause of the death of Mr. Whitney. [Applause.] Inasmuch as Dr. Mott has alluded to private conversation, I shall take the liberty of alluding to an interview which I had with him, and which, until this moment, I have withheld, because I did not feel that I was at liberty to make statements which were not brought before the public, and which were not made either in the *post-mortem* or in the report which was read by Dr. Beales. But this I will state, that two days before the death of the patient, on Sunday evening, he made me what I considered a kind and friendly visit, and stated that he had heard these rumors or reports, that he knew they would affect my feelings, and that he would do by me as he wished to be done by. He came to me to make these statements, and requested of me what I had done in regard to them. He stated to me that it had been emphatically declared to him by the attending physician, as well as by the patient and the friends, that in operating on him I had used a metallic or other tube, which had punctured the wind-pipe, and hence the emphysema. I related to Dr. Mott, in precisely the same terms as I have stated here, so far as I recollect, the course I pursued in regard to Mr. Whitney, and then referred him to Dr. Foy, who was present at the last operation. Dr. Mott said, "If that is so, it is impossible that this injury could have been produced as stated; the sponge probang could never have produced this injury." He furthermore stated that the emphysema, which had been very great and extensive, had almost entirely disappeared, so that his countenance presented almost its natural appearance. These were the very words the Doctor used. I thanked him for his kindness, and walked home with him, talking with him and making inquiries as to what could have been the cause of this emphysema. "But," he said, "how can we account for the occurrence of the emphysema, which has now almost entirely disappeared, and for the impossibility of deglutition, and difficulty of respiration, under which the patient suffers?"

Œdema of the glottis was suggested, but the respiration was not such as occurs in this lesion. Neither of us thought of or suggested a pharyngeal abscess. When we parted, he appeared entirely satisfied with my explanation, and declared, as he did repeatedly during the interview, that he would go back and declare to the physician and friends of the patient the truth as he now believed it.

In my interview with him in regard to the *post-mortem*, he never

declared to me that there was any opening whatever in the pharynx; that was a fact which came to my knowledge subsequently.

I will now, with leave, Mr. President, proceed to lay before the Academy some further facts and statements which I have in my possession, and which have an important bearing upon this subject.

In the first place, Mr. President, I desire to call the attention of the Academy to the ground upon which I first took my stand; namely, that in the management of Mr. Whitney's case, my treatment was based upon the positive presence of tubercular disease of the lungs, complicated with follicular disease of the throat; and that this treatment, adopted in accordance with the present state of medical science, was legitimate and appropriate; and, furthermore, that whatever lesions may have been revealed by the partial *post-mortem*, instituted by the physicians present, none of these could by any possibility have resulted from any operation of mine.

A plain history of this treatment, precisely as it occurred, together with the indications upon which it was founded, was laid before the members at a former meeting of the Academy.

At the last meeting of the Academy I exhibited to you, gentlemen, the identical instrument with which the operation was performed, and Dr. Foy, who was present at the meeting, and who stood by the patient and observed the operation, corroborated my statements, and declared that "the irritation caused by the introduction of the instrument was not greater than he himself had experienced when having his uvula touched with nitrate of silver." It was also shown that although the patient remained some time after the operation, clearing his throat and expectorating, yet not a particle of blood was seen in the sputa. And yet Dr. Beales comes forward, and in this open Academy declares that the evidence is irresistible, that by this "unfortunate operation on the 14th of December, the pharynx was accidentally lacerated by the probang, and that this was evidently the immediate cause of the death of the patient." Sir, I deny this unfounded accusation, and I shall now proceed to show by facts that the occurrence of such an accident is simply impossible.

Before the last meeting of this Academy, Dr. D. S. Conant, Professor of Surgery in the University of Vermont, Demonstrator of Anatomy in the New York Medical College, one whose ability as an anatomist and pathologist none will dispute, made some important experiments on the cadaver which afford undeniable proof—if proof were still necessary—that the accident to which Dr. Beales refers could not

by any possibility have occurred. In answer to an inquiry made on this subject, Dr. Conant writes:

"I have very recently made several experiments in regard to the sponge-armed probang, the unarmed probang, and the ordinary tube, for operations within the air passages; and thus far I have found no one of the above named instruments *strong enough to be pushed through the trachea with all the force that could be brought to bear upon such an instrument*. I subsequently made a small opening in the trachea about the size of the whalebone, and then attempted to force the sponge-armed instrument through the same opening by lacerating the borders of the punctured membrane. Here I found that the instrument was not strong enough to produce the slightest perceptible laceration. Indeed, I believe the sponge would be torn from the staff before the membrane would give way. I then tried the tube, and also failed to produce the slightest effect upon the trachea. On dissecting down on the bronchial tubes, I found that I 'could at pleasure direct the tube into either the right or left bronchus.' It is proper to state, that while trying to perforate the trachea, I had a strong ligature applied to the organ at the point just opposite the upper end of the sternum.

"After trying the above experiments, I turned my attention to the *pharynx*, and found the sponge-armed probang incapable of producing the slightest abrasion of the mucous membrane.

"I experienced much difficulty in using any great force on the anterior wall of the pharynx, as there is no point upon which the instrument could be made to catch, without going into the larynx. But upon the sides, and posterior wall of the pharynx, *I used all the force the instrument would bear, without at all breaking the mucous membrane*.

"My experiments were made upon the female as well as the male trachea and pharynx; and I am fully satisfied *that it is absolutely impossible to perforate either the trachea or the mucous membrane of the pharynx or larynx*, with the ordinary sponge-armed probang or the tracheal tube.

Yours, very truly,

D. S. CONANT."

All this was well known before, Mr. President, that under the circumstances such a lesion, as it is stated in the *post-mortem* was found in the pharynx, could not have been caused by my instrument. You, as a surgeon, know, sir, and every anatomist and surgeon in this room are aware, that neither the lining membrane of the larynx or pharynx could have been thus ruptured. No, sir, the Almighty

Artist, in His wisdom, never lined those important *life tubes* with tissue paper, to be easily and fatally torn.

I have one other fact to answer to the charge made by Dr. Beales, that a "slough or eschar was formed at the apex of the lung, involving the pleura, by the injection of a solution of nitrate of silver." Without referring to the anatomical impossibility of the fluid reaching this portion of the lung, or commenting on the incongruity between the statement made in the *post-mortem*, that this cavity was "just at the root, or at the commencement of the bronchial ramification," and the assertion made by Dr. Beales, before this Academy, that it was a "scooping out of the actual apex, or superficies of the lung," (two positions nearly six inches apart,)—without, I say, stopping to comment upon these incongruities, I shall only state one fact, furnished by Dr. Beales himself. It is this—that on the 12th day of December, six days after this injection into the bronchi was made, the patient drove over to Long Island, and spent the day in riding about, dined with friends, and returned to the city at night, feeling and appearing better, as the Doctor himself affirmed, than he had for several weeks before! And all this when, according to the Doctor's "opinion," acute inflammation and sloughing of the lung was going on, from the effects of this injection!

Mr. President, Dr. Beales confesses in one breath that he is "ignorant of the effects of the nitrate of silver on the substance of the lungs," and in the very next "he does not hesitate to express his conviction that it is at *all times* attended with extreme peril and risk of the patient's life." Why, sir, has he not known of its "effects" in disease? If he would not regard the experience and published observations of *Americans* on its use and effects, why has he not attended to the many favorable publications on this subject from distinguished physicians of his own country?

Many important works have been published recently in Europe on the topical treatment of disease, or in which this method is discussed. Among these is the excellent work on Consumption, by Dr. Cotton, of London; also Dr. John Hastings' work on "Diseases of the Larynx and Trachea, and their Treatment by the Local Applications of Caustics." The work of Dr. Scott Allison, of London, on the *Medication of the Larynx and Trachea*; of Professor Watson, of the University of Glasgow, on *Topical Medication*; and that of Professor J. Hughes Bennett, of Edinburgh, on *Tuberculosis*, and on the *Local Medication of the Larynx and Trachea*—these, or many of these, must be

known to the members of the Academy. I will claim your indulgence for a few minutes, while I allude briefly to the opinion of two or three of these authors.

Dr. Cotton, one of the physicians of Brompton Hospital, "in speaking of topical medication in chronic laryngitis and laryngeal phthisis, admits his previous unbelief in, and changed views with regard to, the practicability or propriety of topical medication of the respiratory passages." "I should here remark," he observes "that my own views upon this subject differ from those I formerly held, and have even expressed; and that I owe this change to the labors of Dr. Horace Green, of New York, who has convinced myself and others, not only of the possibility but of the safety and usefulness of the practice.

"For some months past I have employed this treatment extensively in cases of chronic laryngitis, whether idiopathic or tubercular, and very frequently with marked success.

"At the commencement of the laryngeal symptoms, a solution of the crystals of the nitrate of silver, varying in strength from ten grains to half a drachm to the ounce of distilled water, passed by means of the instrument recommended by Dr. Green, into the opening of the larynx, is often productive of great relief. I have known the voice regained, the irritable cough removed, and the tenderness and difficulty of swallowing dissipated entirely by it; indeed, I think we might almost speak of its curative effects, so far, at least, as the larynx is concerned, in some very early cases."

In Prof. Bennett's work on Consumption he expresses a decided opinion in favor of the topical use of nitrate of silver in the treatment of tuberculosis. He says:

"In all cases of tubercular deposit there occurs in the immediate vicinity of the exudation more or less of an inflammatory action, in which all the adjacent structures are involved. The bronchial membrane and the pulmonary parenchyma become at once congested, and subsequently inflamed. The terminal extremities of the bronchi," says Prof. Bennett, "are among the first structures affected; and as the tuberculosis proceeds, all the appearances characteristic of chronic bronchitis are produced, and are constantly going on in the progress of the case. Consequently," he observes, "the great problem to be worked out in the treatment of pulmonary tuberculosis is, that while, on the one hand, it is a disease of diminished nutrition and weakness, and consequently requires a general invigorating and supporting system of treatment, on the other, it is accompanied by local excitement, which demands an antiphlogistic and lowering practice."—(Op. citat., p. 68.)

It is to meet this last indication, to subdue the local inflammatory action in the immediate vicinity of the exudation—an action which, if continued, will not only effectually prevent the disintegration and absorption of the tubercular mass already formed, but which will tend to augment the mass—that applications of the nitrate of silver solution to the congested and inflamed membrane are advised, in early as well as in advanced tuberculosis.

Dr. Hastings says: "In the treatment of acute laryngitis, the topical application of a solution of the nitrate of silver may sometimes be employed with great advantage; indeed, unaided, it will not unfrequently remove the disease. But it is in the chronic form of laryngitis that this treatment is remarkably useful. Many such cases improve rapidly under local treatment applied to the larynx and trachea, which, if neglected for months, or it may be for years, not unfrequently lead to permanent changes."

In this connection, Dr. Hastings relates some most interesting cases of chronic laryngitis attended with hoarseness, cough, emaciation, "expectoration streaked with blood," difficulty of breathing, night sweats, and most of the ordinary symptoms of phthisis—all of which he says were promptly and permanently relieved by a solution of nitrate of silver, of the ordinary strength, applied to the larynx and trachea. With regard to the treatment of tubercular laryngitis, Dr. Hastings remarks:

"I know of no means so capable of arresting and removing it as sponging the windpipe with a solution of nitrate of silver."—(Op. citat., pp. 79, 80, 81.)

Professor Watson, of the University of Glasgow, says in his work on Topical Medication: "In the treatment of chronic disease of the laryngeal mucous membrane, I place my chief reliance on topical application to the parts affected."

And in the employment of local treatment in tuberculosis, he has recorded several most instructive cases, in which the larynx has been advantageously treated by topical means, in both incipient and advanced pulmonary phthisis. In combination with, or to be followed by appropriate general remedies, Dr. Watson urges the importance of the use of applications of nitrate of silver to the larynx in all those incipient cases of phthisis in which the cough is caused by actual laryngitis, by the irritation produced by the passage of bloody sputum, or by secondary nervous irritation of the larynx. He says: "In treating the larynx, with a view of diminishing the cough, the physician is not to be looked upon as irrational, but, on the contrary, as

aiming his remedial measures at the very source of much of the distress of the patient, and of the fatal progress of the disease."

No unprejudiced person can read the testimony embodied in the cases reported by Dr. Watson without having the conviction forced upon him that in many of these instances of early tuberculosis an arrestment of pulmonary disease was brought about by the measures adopted. He remarks: "Undoubtedly the tendency to tubercular disease still remains in the constitution, though its local manifestation had ceased to exist. Formerly there was positive evidence of an actual consumption; now there is no such evidence, but, on the contrary, all the signs and symptoms of perfect health."—(Op. citat., pp. 85, 168.)

Dr. Scott Allison, in his work on the Medication of the Larynx and Trachea, says: "I had so frequently found, in the treatment of local disease and local complications, that many remedies were far more efficacious when applied immediately to the part affected, or to its vicinity, than at a distance, and I was glad to learn that a sponge, loaded with a solution of nitrate of silver, and affixed to a probang, could, not only without injury, but with manifest advantage, be passed through the glottis and larynx, down into the trachea."—(Op. citat., p. 23.)

In chronic inflammations of the larynx, and of the upper portion of the trachea, the solution of the nitrate of silver has in my hands, as in others, been very useful in bringing the disease to a conclusion; and where that has not been accomplished by reason of its dependence upon incurable disease of the lungs, it has almost invariably afforded very considerable relief, by rendering the cough less violent and frequent, and removing much of the tickling and uneasy sensations at the upper portions of the larynx.

Dr. Allison is decidedly in favor of the employment of the nitrate of silver in the treatment of that cough and irritation of the glottis which are dependent upon the presence of tubercles in the lungs. He says: "Much comfort and benefit have been derived from its use, both when the tubercles have been crude and when they have become softened. The presence of undoubted cavities in the lungs, the breakdown of tubercles, and the expulsion of their *debris*, have not prevented this application from being decidedly useful."—(Op. citat., p. 8.)

Prof. Robert B. Todd, Physician to King's College Hospital, London, who has had much experience in the treatment of laryngeal, bronchial, and pulmonary diseases, by topical medication, has embodied in his "Clinical Lectures," recently published in the London Medical Times and Gazette, some of his views, and recorded his ex-

perience in relation to this subject. In the treatment of these affections he employs and recommends the local application of a solution of nitrate of silver (half a drachm to the ounce of water,) "by means of a probang thrust behind the epiglottis down to the glottis, on the plan of Dr. Horace Green, of New York." Dr. Todd says: "I could tell of numerous instances of coughs of the most troublesome kind, and of long duration, that had resisted all the ordinary cough medicines, and had yielded to three or four applications of the nitrate of silver." —(*Times and Gazette*, No. 139, p. 207.)

And finally Prof. Bennett closes his valuable work on pathology and treatment of pulmonary tuberculosis by the following practical conclusions:

"1. That not unfrequently diseases entirely seated in the pharynx or larynx are mistaken for pulmonary tuberculosis.

"2. That even when tuberculosis exists many of the urgent symptoms are not so much owing to disease in the lungs as to pharyngeal and laryngeal complications.

"3. That a local treatment may not only remove or alleviate these complications, but that, in conjunction with general remedies, it tends in a marked manner to induce arrestment of the pulmonary disease." —(*Op. citat.*, p. 142.)

But, Mr. President, this is not a tithe of the facts and observations in favor of topical medication that might be gathered from the profession elsewhere, in this country and in Europe. I have spoken before the Academy of its employment in France, altogether more extensively than in this country, and of the efforts of such men as Velpeau, Piorry, Depaul and others of the Imperial Academy, to find some member of the profession in France for whom they could justly claim the honor of priority in this matter. But failing in this, they have, as many of you know, in the words of M. Trousseau before the Paris Academy, generously awarded this honor to a member of your own body. But how, Mr. President, has that award been received by this Academy, and what consideration has topical medication received at its hands? Its advocate, who stigmatized year after year for adopting a treatment and claiming to perform operations whose practicability and great usefulness (although here denied) are now admitted among the scientific of the profession in every country in Europe, now stands accused by one of your body of employing a treatment—this same treatment—which he, Dr. Beales, does not hesitate to declare "is at all times attended with extreme peril and risk of the patient's life." And, more than this, sir, he has accused me openly in

this Academy of having been by this treatment "the immediate cause of the death of his patient." Sir, I deny this—utterly and absolutely deny it; and I here arraign before this tribunal, and that of the professional world, its author, for having uttered against a Fellow of this Academy a calumnious charge—one which he has not and which he cannot substantiate. I have no desire to recriminate—I only seek for truth, and demand justice at your hands. But this I will say, in the words of the immortal Hufeland: "Would to God that the minds of all my medical brethren could be as forcibly penetrated with the truism as I am, that he who degrades a fellow practitioner degrades himself and his art." (Loud applause.) Sir, I will not recriminate; for if my cause, if the practice which I advocate, cannot be sustained in truth and in science, without sophistry or misrepresentation, then let it perish, and its author be forgotten. (Applause and hisses.)

DR. BEALES—I only regret, Mr. President, that I have not come prepared with something written as my predecessors have done, because, as has been justly stated, verbal statements may be misunderstood. Having stated the simple facts of the case at the last meeting of the Academy, and given frankly my opinion respecting it, I did not expect to be called upon to speak again to night. But, in consequence of the remarks of Dr. Green, I feel it due to myself, my colleague in the case, and to the Fellows of this Academy, to answer some of his strictures. My remarks are made off-hand, and therefore I beg you to excuse me if all my words are not exactly what they ought to be.

First, with respect to this tuberculosis, I wish to state that there was not the slightest physical sign of tuberculosis about the patient. The cavity that was found at the apex of the lung, in my opinion, was not tubercular; it had no sign of that character. Dr. Green is mistaken when he says there was a slough found there. I said no such thing. I said it appeared, we all thought, as though a slough had separated from there. We did not pretend to find a slough. As I said the other night, this was rather incorrectly described in calling it a cavity. It was not a cavity; it was, as I said before, scooped out at the apex of the lungs. It contained no kind of fluid, no lymph, no portion of false membrane.

Dr. Green read the other night a description of a tubercular cavity. I have taken the pains since then to read Rokitansky, and I assert that there was not the slightest appearance about this case similar to what that author describes as a tubercular cavity, nor what Andral, Louis, or Forbes and all those writers have described as such. Andral

says particularly, that it contains fluid, and as that fluid disappears false membrane is gradually formed. There was no such thing about this case, and I am perfectly certain, although I have not asked the question, that Dr. Mott will agree with me upon this point.

But I will go beyond that; every one of these great writers, every man who has written on tubercular phthisis, says, that it is a very rare and exceptional case to find a single cavity by itself in the lungs without any other signs of tuberculosis in the body. There was in this case no other sign of tubercle. The hepatization was the hepatization of pneumonia. What caused it is a question. The right lung was perfectly healthy. What does Louis say? It is so rare that there are not tubercles in both lungs, that in all his experience, with the exception of two cases, he has never found the tubercle confined to one lung. Every one of the writers speaks of the accompanying local diseases that always exist with tubercular phthisis.

Dr. Green has read the opinions of different eminent men. They all speak of applications in the larynx and trachea, and not to the lungs.

I stated that I would not say that this disease at the apex of the lungs was occasioned by nitrate of silver, because I confess my ignorance of the effect of it upon the lungs. The Doctor has accused me of being ignorant of the matter because I was not acquainted with the writers of my own country. I have read the works of every man that the Doctor has quoted, and I assert that he has not mentioned a single instance of the application to the lung; it has all been local application to the larynx, trachea and glottis, and not to the lungs. I spoke of my own want of personal knowledge. I am aware that the Doctor has been applying it, and that it has sometimes been applied in Paris, but we do not know the results.

There is one point that he alluded to, in which, I think, he saw his own danger. He said that this application of nitrate of silver to the apex of the lung could not have caused the death of the patient, because it could not have reached there. Now, sir, he diagnosed a cavity, or rather a softening, at the apex of the lungs. Read his statement. If the nitrate of silver could not get to the apex of the lungs, why did he attempt to inject it?

DR. GREEN—I have given the reason; it is very obvious, applications to the opening of the air-passages are beneficial in diseases of the lungs.

DR. BEALES—With respect to the glottis itself, Dr. Green applied the nitrate of silver repeatedly, without there being any disease at all.

There never was a more healthy glottis and larynx than we found in this case.

And here let me correct a slight mistake that Dr. Green has made in reference to the use of the tube. If Dr. Mott mentioned to Dr. Green that either the patient or myself stated that the tube had been passed down Mr. Whitney's throat on the day of the accident, he mistook or misunderstood the fact. The patient said it had been passed once, a few days before, and not on the day of the operation. He never said that it was passed down his throat on that day, but some six days, I think, before.

With reference to this injury by the probang and sponge, I will repeat the simple facts of the case. Mr. Whitney breakfasted at home, went to market, attended to his affairs, and then went to Dr. Green's office, where this operation with the sponge probang was performed. He said that the doctor felt some obstruction, which he was forced to overcome. He (Mr. Whitney) immediately felt something give way in his throat, and he told the doctor that he was hurt. The doctor explained it by saying that he had drawn in his breath—I do not recollect the exact expression. When I saw the patient he kept his throat grasped in this way, (clasping his throat,) saying that there was the injury. It is stated in the papers that he made use of an intemperate exclamation. It is true that I put that exclamation in my statement, because I wished to show the exact state of the patient's feelings, but it was not with my consent that it went into the papers. The gentlemen reporters will bear me witness that I struck it out of the manuscript before I handed it over to them. The fact was, he not only made that exclamation once, but probably forty or fifty times; and within eighteen hours of his death he said to his sister, "I am a dying man; what a horrible thing it is to be sent out of the world murdered in this manner!" This was the evidence of a man knowing that he was dying.

Now, I do say, if Dr. Green has performed this operation a hundred, or a thousand, or a hundred thousand, or a million times, and no accident happened, that is no proof that it cannot or will not happen, or that no injury was done on this occasion. Here we have the strongest moral evidence that this injury did occur. No one accused Dr. Green of doing it purposely; no one dreamed of it. Neither Dr. Mott nor myself wished to inculcate him. On the contrary, I could bring forward evidence to show that I did everything in my power to prevent this matter from being made public. Therefore his eloquent

statement about professional men injuring one another does not fall upon my shoulders.

This exclamation was made before he pointed out where he was injured, and he kept making it until the moment of his death. And in the post-mortem we found the lacerated opening in the pharynx precisely in the spot where he said it was. Is that evidence or not? Look at it in a common-sense view.

I repeat what I said at the first, that that laceration of the pharynx caused all the choking symptoms for three or four days. When this obstruction commenced foreign bodies were forced into the wound, and there was formed a large cavity which gradually suffocated the patient—which, by preventing the epiglottis from closing, interfered with his breathing and the taking of food. That could not have been diagnosed by any living man; and even if it could, there was no possibility of opening it in the state of the patient; and even if it could have been opened, it would not in the least degree have benefited the patient. Every one figures to himself an abscess with a large collection of pus, and nothing else. There was comparatively little pus. It was filled with extraneous substances, and more especially with a large mass of slough, partly loose, and partly hanging in it like wetted tow, as Dr. Mott has stated. I ask you, as surgeons, if you could have made any external opening into it, would it have saved the patient? Therefore I am perfectly justified in saying that the death of the patient resulted from that treatment.

DR. GREEN.—There are a few points in the gentleman's remarks that I beg leave to refer to. He says I located the abscess or cavity in the apex of the lungs.

DR. BEALES.—The softening, I said.

DR. GREEN.—It was under the clavicle, some distance from the apex. He says that I have not mentioned a case in which these authors used an injection into the lungs. I did not deem it necessary to bring before this Academy at this time what I have stated already, that Prof. Bennett, of the University of Edinburgh, has reported cases in the *Edinburgh Medical Journal*, in which he used injections with great advantage; and that they were constantly using it in Paris at this time. And in recent numbers of the *L'Union Medicale* it will be found that Trousseau has been injecting into the lungs for diseases of the air-passages. I did not refer to these cases at this time, because I have already submitted them fully.

Dr. Beales states that Dr. Mott admitted to the family that there was nothing found in the post-mortem that might not have occurred

within a week. Suppose this was so, how could the injection, which was made fifteen days before, have led to these pathological changes? for this is the inference. If the gentlemen will look at the last number of the Boston Medical and Surgical Journal, they will find that six cases of hitherto incurable croup have recently been saved by injecting into the larynx and trachea a solution of nitrate of silver, 20 grains to the ounce, while in the case of this patient only 15 grains to the ounce were used. One child, four and a half years old, was attended by Dr. Bowditch, Dr. Gay, and two or three other gentlemen. Finding that the patient must die, they commenced tracheotomy, and the child apparently died under the knife—that is, it ceased to breathe, and the heart stopped beating. They, however, made the perforation through the trachea, and then poured into it half a teaspoonful of the solution of nitrate of silver, 20 grains to the ounce. The child gasped like a new-born infant, coughed, and drove out a piece of false membrane two and a half inches in length. Every two hours they followed it up, pouring in the solution of nitrate of silver, 20 grains to the ounce; on every occasion causing expectoration of the false membrane, until the child recovered. Now, what becomes of that child's lungs, if the solution produced inflammation or a scooping out of the apex of the lungs? They are doing this constantly in France and in our own country, and we have never heard of a single instance where injections have produced any deleterious effects upon the lungs. It was not necessary to bring up these facts in corroboration of the fact that this practice was being employed everywhere.

I say, then, if nothing occurred that might not have taken place within a week, is it possible that the patient could have performed all the acts he did, lived as well, and been as hearty until he came to have the application made by the sponge probang, at which time he declared himself better. There were erosions and ulcerations on the epiglottis and in the larynx, and I would be ashamed of my treatment if, after having had a patient under my care for two months, I should not have effected some change; and that this was so is proved by the declaration of these gentlemen themselves, who say that they found the larynx and trachea perfectly healthy. [Laughter and applause.]

A member rose and moved that the subject be referred to the section on the Theory and Practice of Medicine.

DR. MOTT—I beg before that is done to say a word in elucidation of what I have said before. Dr. Green observes, that when he was at my house, after the death of Mr. Whitney, to get information from me relative to the post-mortem, I did not speak of this cavity in the

anterior and left lateral part of the pharynx. If I did not I am surprised, because that was certainly a great feature in the case.

DR. GREEN—You mentioned the abscess, but not the opening into it.

DR. MOTT—I am speaking of that cavity. I denominated it an abscess in the post-mortem. Perhaps I should have been a little more nice and critical if I had known all this hoity-toity was to arise in reference to this unfortunate case. Now, there is no impropriety in the elucidation I gave in the paper I read at the commencement of this session, in which it is stated to be more a cavity than an abscess. I know what an abscess is, I suppose, as well as my brethren generally. Anything that contains pus may have been an abscess. But, as I observed, having reflected since we have got into this dilemma, I could have said more properly perhaps a cavity. My friend, Dr. Beales, said it was more a cavity than an abscess. We did attest to the accuracy of the post-mortem, and I am answerable for that; but had I foreseen this, I certainly should have been more precise and particular.

At the lower part of this cavity, just at the commencement of the œsophagus, there was a little pus, but it was literally a cavity. What caused that cavity deponent saith not, because it is impossible for me to say. I have been compelled, from all that has been published on the subject, reluctantly to give my opinion, and repeat that the cavity was filled—all but filled, if you will excuse it, with a little pus; no more than nature throws out—no more than was necessary to carry off this extensive slough of filamentous tissue. There must be some secretion of matter. A slough will never take place unless there is instituted around the circumference some little process of inflammation, ulceration and absorption. This sloughing of cellular membrane was extensive, and the opening from this cavity into the pharynx, I said in the post-mortem, was as large as one of my fingers, and Dr. Beales said after me that it was as large as two fingers. I am now willing to amplify upon my first statement, and say it was large enough to admit two fingers.

I have delicately and sedulously withheld giving an opinion, as you gentlemen who are Fellows of this Academy know, as to the cause of this difficulty, and I have not come out until this evening, after having been driven into a corner and compelled to do it. We have been attacked in a way that I never would attack anybody, nor reply to anybody. This is the proper tribunal for every medical man to come before.

One word more. That cavity did discharge matter for several days

before the death of the patient. It was in truth an empty cavity, with the exception of a little remnant of pus at the lower part. It was filled, as I have stated, with dead filamentous tissue. If anybody will take the trouble to dissect for themselves, they will find immediately in that part of the neck that there is a large amount of filamentous tissue. That was about being separated, and the idea that that encroached upon the trachea or pharynx at the time of his death is preposterous in the greatest degree. It did not. It was like an empty cavity—not filled with matter, as has been bruited about the city in the accounts of the affair.

And I repeat, perhaps for the last time, I defy any man, living or dead, ever to have reached an abscess situated like that, upon any principle of sound surgery. I am not ignorant of the nature of post-pharyngeal abscesses; I know they can be opened, and I know the great benefit of opening them. But here the extensive emphysema defied the fingers to detect it, if it had been full of matter, and as big as an egg. No surgeon could ever have detected it under the emphysema and tumefaction.

A single word more. The doctor has stated that other cavities ought to have been examined. Now, I believe it is stated in the post-mortem that the lung and all the other parts were sound. I now state that we examined every part of the lungs, above and below, and the right lung throughout every part was sound, so far as the eye could detect. Perhaps some gentleman will say we were behind the times, because we did not take a slice of that hepatized and pneumoniated lung, and examine it with a microscope. Mr. President, probably I shall die without that refinement. I am satisfied, with my feeble eye alone, that I can tell what tuberculosis is. I shall rest satisfied with that so long as I can see, because I think I am no boy in the profession so far as that is concerned.

DR. GREEN.—The doctor is mistaken on one point. I did not say that he did not describe any abscess to me, but he mentioned no opening into the abscess. It seems to me if there was an opening as large as two fingers it ought to have been mentioned. The abscess he described, and the cutting in to remove the lungs and trachea. They cut into the abscess and pus gushed out; I use the doctor's words to me. Now, I cannot reconcile these two statements.

DR. MOTT.—Pardon me, there is no discrepancy in those statements. When the incision was carried along by the left side of the thyroid cartilage a little matter made its appearance, and I said to my son: "There is a little matter." It was really no amount of matter.

[Laughter.] All the other parts of the lungs below were entirely sound. This was a solidification from inflammation of the upper part of the left lung, about, say, half of it. We cut into the lungs all through—both left and right—all through the lobes of the right, and there was not an atom of tuberculosis to be seen in any part of it. If there was tuberculosis at the upper part of the lung, where our trouble was found, I have yet to learn what tubercle is. I covet with all my heart to learn it.

DR. GREEN.—If the cavity contained no pus, and must have broken before, so that the pus was discharged, how was it that it produced the effect that Dr. Beales speaks of—preventing respiration and deglutition, suffocating the patient, keeping the epiglottis back? I cannot understand all that.

Dr. Mott says the abscess was as large as a hen's egg. He mentioned no opening in it at the time I conversed with him, but he used these very words: "On making the incision the pus gushed out." And furthermore, I should think he would have mentioned it, because he said on making an examination of the larynx and trachea they found a small red point, which led them to exclaim: "Here is the point of laceration of the mucous membrane, by which the air must have escaped to cause the emphysema;" but when they came to examine it with great care they found no opening whatever. That red point was directly opposite the abscess, but it led to no opening into the abscess. If this opening, of which Dr. Mott speaks, was large enough to admit two fingers, why should it protrude the thyroid cartilage and cause suffocation before the matter was discharged? Dr. Beales stated originally that the opening was large enough to admit two fingers, into which, probably, food and other agents employed entered. Did this gentleman find any food in that cavity?

DR. BEALES.—There was nothing but a small portion of liquid food taken, and for eight and forty hours before his death no food at all.

DR. GREEN.—The question in regard to the tubercular cavity and deposits in the lung, I leave to be decided between Drs. Mott and Beales on the one hand, and Rokitansky and all modern pathologists on the other. If according to those authorities that was not tubercular—if they can make out anything else but tubercular deposit and cavity, then some new light will be thrown on pathological science.

DR. ANDERSON.—Mr. President, we have had this subject discussed before, and have got all the information that can be given upon the subject; I move, therefore, that it be indefinitely postponed. I would suggest that the papers that have been read here be kept in our

archives, according to the by-laws. It has certainly been a very interesting discussion.

DR. WATSON (vacating the chair).—Before putting that motion I ask the privilege of saying one word. I have listened with a great deal of interest to the report of this case. I merely desire to say, that I believe most of the statements made by the gentlemen who have discussed this subject are capable of being reconciled, and that a thorough, candid, careful statement made by the gentlemen, if brought together, will put this matter before our profession in such a light as to be clearly understood. As it is now it is not thoroughly stated. I say it with due respect to the gentlemen. Mr. Whitney was a man between 40 and 50 years of age; (Dr. Beales, interrupting, 54.) There has not been a word said of his previous life. He was ill a year, during which time he was under medical care, and we have not heard a word of his history during that period. Now, gentlemen, you can understand very well that a thorough explanation of this man's circumstances and condition during not only his sickness but his previous life, might add much to the facts we have before us. My own opinion is, that a correct and complete statement of his case has not been made on either side. With this exposition, and without giving my own views upon the case, I put the question.

The President resumed the chair, put the question on the motion for an indefinite postponement, which after a division was declared to be lost.

The question recurring on the motion to refer to the section on the Theory and Practice of Medicine, an amendment was offered to refer it to a committee of seven, of which Drs. Green, Mott, and Beales should be members.

DR. BATCHELDER thought that those gentlemen should not be on the committee. Let the committee be composed of five, with the understanding that those gentlemen be invited to the investigation. If they are on the committee we shall have a majority and minority report.

DR. GREEN said that what he had wished for from the commencement was, that this Academy should have all the facts before them, and that the entire body should decide the question for themselves. He objected to the reference to a committee, but if were to be referred, he preferred it should go to one of the sections. He would much prefer, however, to have it discussed in committee of the whole, and decided if possible. As for himself, he had presented all the facts he had in regard to his treatment of the patient, but there were certain

others in relation to the previous condition of the patient which he could have given, but was deterred through consideration for the patient and his family.

DR. SAYRE inquired if the specimen of the part of the injured larynx could be seen.

DR. MOTT.—It cannot be found.

DR. SAYRE offered an amendment to an amendment already offered.

The PRESIDENT declared that an amendment to an amendment could not be received.

DR. SAYRE then offered his amendment as a substitute.

That the President also refused to receive.

DR. SAYRE moved, as an amendment, to strike out all after the word "resolved," and insert the following: "Whereas charges have been brought against Dr. Green, a Fellow of this Academy, which have not been substantiated by the post-mortem, or any evidence brought before this body, therefore

"*Resolved*, That in the opinion of this body Dr. Green should be exonerated from any censure, or charge of malpractice in the case of Mr. Whitney, and that the subject be dismissed."

DR. McNULTY moved an indefinite postponement of the whole subject.

DR. SAYRE.—I hope the Academy will not thus disgrace itself.

We were honored at the last meeting with a statement by the President, that this Academy had risen to so high a position in the public estimation that it was looked up to for an expression of opinion on all subjects relating to the medical profession, and in respect to sanitary regulations at large. We are now arraigned by the—

THE CHAIR —There is no arraignment.

DR. SAYRE.—We are arraigned before the public! and they expect from us an expression of our opinion, whether the treatment of the local application of nitrate of silver to the air-passages is dangerous or not.

Dr. Beales has stated that it is dangerous and injurious under all circumstances, and this statement has gone to the world as an expression from this Academy—in the face of the fact, that almost every well-educated physician at the present time is in the daily employment of the remedies as suggested by Dr. Green; and the highest authorities in Europe are lauding his method as a boon to mankind. I am in the constant use of it, and, I am satisfied, with the greatest possible benefit. But if I am doing wrong, and am risking the lives of my patients, I want to put a stop to it.

Either Dr. Green killed this man, as is charged, or he did not do it; and it is due to the public, who expect it from us, that we should pronounce upon this matter, either for or against, and not act like cowards, when we have made a charge which we cannot substantiate by a single proof, dodge the question by laying it on the table, or by an indefinite postponement.

DR. MOTT.—As to myself, I am sure I have not made any charge. (Oh! oh! through the house.) I have simply stated that I believed so and so; I have been called upon to do it. Suppose the gentleman died from the result of the treatment: do we not all have cases that are unfortunate?

The truth is simply this—so far as regards the topical application to the larynx and trachea, there is, I suppose, not a physician in fifty that is not an advocate for it, carefully and prudently done; and no doubt it was prudently done by Dr. Green. The view I held up to the family, as Dr. Beales knows, was, that the death was the result of an accident. That accident we supposed might be in the larynx or trachea, but the trouble was below, at the perforation through the pleuræ; and now this resolution would imply that we had censured Dr. Green. We have come here for the purpose of elucidating the case. As regards this case, what could we have done more than give a history of it after we saw the patient. In the post-mortem my duty was to give a faithful statement of the case; and having been brought here through the medium of the press, I thought this was the proper tribunal before which to declare that nitrate of silver did so and so. I repeat, that the resolution of Dr. Sayre would seem to imply censure, as if we had made a set charge, which I say we have not.

DR. FOY—Then, by a parity of reasoning, the statements now made as to Dr. Green's treatment are entitled to no more consideration than the charge as it appeared at first, which was, that an instrument had been thrust through M. Whitney's larynx.

DR. MOTT—Never!

DR. BEALES—I never had, either directly or indirectly, any communication with the public papers. I deny it.

DR. MOTT—Neither have I.

DR. GREEN—I want to ask one question. When the gentlemen found no perforation whatever, knowing, as they must have known, that these charges had got in all the newspapers, why did they not relieve me and the public, by coming out and stating the fact. [Applause.]

DR. SAYRE—I regret that I should be drawn into this matter, par-

ticularly as I shall be compelled to take ground antagonistic to my particular friend, Dr. Mott, to whom I am indebted for so many acts of great personal kindness, and to whom I shall always feel under the deepest personal obligation.

THE CHAIR—Keep to the subject, Doctor; never mind irrelevant matter.

DR. SAYRE—I will, sir! When a Fellow of this Academy is charged with the terrible act of taking another's life, a sense of justice, honor, and truth demands that the charges be investigated.

DR. MOTT—I never made any charge.

DR. SAYRE—Will Dr. Mott be kind enough to read the last two or three lines of his paper. I am informed the charge is made.

DR. MOTT—It is merely an opinion. [Laughter.]

DR. SAYRE—We want no subterfuge. Plain English language has a meaning, and the opinion of Dr. Mott weighs with the world more than that of some of his compeers, and with them is equivalent to a charge; and an expression of that opinion, without our action upon it, will be taken as the opinion of this Academy. That may be Dr. Mott's opinion, but, from all the evidence brought before this Academy, I do not believe it is their opinion—I know it is not mine. I have listened with great attention to the whole of the discussion, and I believe I have a full comprehension of the whole case. I have carefully analyzed the post-mortem report, and it is not most certainly *my* opinion.

I should like to have the opinion of this Academy. Let us examine the evidence upon which they have formed their opinions. In the first place, we have all the symptoms narrated by Dr. Beales. He said there was a choking of the throat, and a swelling around the epiglottis, great difficulty in respiration and deglutition, increasing in fact to suffocation, of which he died. Now, gentlemen, I ask what do these symptoms all mean, if they are not the ordinary symptoms of an abscess in the neighborhood of the pharynx and larynx? I know full well that the emphysema, which arose from the perforated pleuræ, so distended the parts as to render the detection of that abscess almost impossible, except from the rational signs, and by the doctrine of exclusion, and therefore I do not blame them for not discovering it.

But let us examine this post-mortem report! They first assert that externally nothing peculiar was observed—and in the very next sentence they say, “the anterior projection of the thyroid cartilage was more than ordinary,” and that an incision through the deep cervical fascia on the side of the thyroid body opened into an abscess as large as an egg, filled with pus, “and ragged shreds of broken-down cellu-

lar tissue." Now, we can all readily see why the thyroid body was so prominently projecting forward—it was on account of this abscess around and behind it; and who does not know that an abscess in that locality, of sufficient size to project the thyroid body forward, is sufficient to close the entrance to the larynx, and thus produce almost instant death; and it was in this way that he did die—according to Dr. Beales, "*rather suddenly*, partly from exhaustion and partly by asphyxia." But we are told that this abscess had a "hole in it, large enough to admit the two fingers, leading into the pharynx." Now, in the horizontal position this must have been at the bottom of the abscess, and I should like to know if any gentleman ever saw a bladder with a hole in the bottom, large enough to admit two fingers, that would hold water, or any other fluid? Consequently I conclude that this hole was made after death, and that had it burst previous to death he would not have been suffocated by it.

DR. MOTT—That is not fair; do me reasonable justice—you could not make such an opening with an instrument.

DR. SAYRE—I am aware of that, but Dr. Mott, and every other surgeon, knows how difficult it is to get out the walls of an abscess without rupturing them, even where we wish to do it with the greatest care, in order to preserve it as a morbid specimen. Who, that has attempted to get out an abscess in the neighborhood of the bladder, does not know how easily it is torn? The tissues being diseased are soft, and almost sloughing, and readily tear without the application of a knife. But I ask in the name of common sense, and in the ordinary principles of philosophy, how could this abscess have retained sufficient pus to push the thyroid body forward, unless its walls had been entire? and consequently I affirm it, as my opinion, that the wound in the pharynx was from a rupture of the walls of this abscess at the post-mortem, and not a tear from Dr. Green's probang, which made the abscess as asserted by Dr. Beales; it was the result, and not the cause of the abscess. So much for the abscess. Now let us pass on further down, and we find the "larynx and trachea perfectly normal, as were the glottis, epiglottis, and surrounding parts;" so much so, in fact, as to attract their attention on account of their perfectly healthy appearance; and here again we have censure passed upon Dr. Green for having applied caustic to these parts, which he had pronounced diseased some weeks before; and now they find no evidence of morbid appearance.

But what do we find in the lung? an abscess the size of a walnut, and most strangely it is found in exactly the place where Dr. Green had diagnosticated one to be the first day he ever saw him, at the same time he observed the erosion of the epiglottis; but to these parts

he had applied his treatment, and with such marked success that both the gentlemen have pronounced them to be as splendid specimens of healthy structure as they ever saw.

DR. MOTT—I would like to ask if the gentleman heard my paper read?

DR. SAYRE—I did not; I was informed by the Secretary that it distinctly charged the death of Mr. Whitney to the treatment of Dr. Green.

DR. MOTT—I never charged him; it was merely an opinion.

DR. REESE—Mr. President, I think I can demonstrate to any man of sound reason without a particle of anatomical knowledge, that there is no justifiable ground for any allegation against either of the gentlemen except what has grown out of the discussion, in which things have been said upon both sides which ought never to have been said.

The critical position to which we have arrived in this discussion prompts me to detain the Academy with a few remarks in advocacy of the action proposed in the resolutions just read. I am unwilling that the free and full expression of opinion in open Academy should be interrupted either by the *reference*, or *indefinite postponement*, or any other form of *gag law*; nor can I consent to any *evasion* of the true issue by any measure short of a decision by this body upon the merits of the whole subject—such as the profession and the public expect and require, and such as Dr. Green demands, as his undoubted right.

Sir, I yield to no man in the respect I entertain for the venerable Dr. Mott, and, until this controversy commenced, my regard for Dr. Beales has been equal to that felt toward other brethren of the Academy. But the grave charge against Dr. Green whom I esteem as equally worthy of his position here, and of the confidence of the profession and the public, constrains me to assume a position antagonistic to both of those gentlemen, because I am persuaded that the facts of this unfortunate case will not sustain them; but when justly considered, will not only exonerate Dr. Green from any, the least participation in the fatal result in the case of Mr. Whitney, but will prove that both Drs. Mott and Beales were more in error, alike in their diagnosis and prognosis, having been at first misled by the patient's censorious denunciations of Dr. Green, which referred all his sufferings to the treatment of the latter gentleman, in terms I care not to repeat.

Mr. President, is it any new thing in your professional experience or mine, to hear physicians accused of killing their patients when sudden and unexpected death has followed their best exertions? Have we not often known surgeons whose patients have unfortunately died

on the table, clamorously charged by surviving members of the bereaved families with butchery and murder? And this, when the duties of both had been performed with the utmost skill and humanity?

Has this Academy ever brought up before it any man on a charge of that sort? Has it ever left its high position to inquire why a man died, because his wife said, or the relatives said, or people said he had been killed by one of its members? And are we to have every member of our body brought up here when an allegation is made by friends or parties interested, implicating him in the death of an individual? I conceive that the declaration of Mr. Whitney, that he had been killed by Dr. Green, is unworthy of notice by the Academy, and deserving of utter contempt, [applause;] and I will say further, that the reiteration of that declaration before the Academy is worthy of equal contempt. [Renewed applause.]

There is an ancient maxim which ought to be introduced into our professional ethics, as it has been into every other kind of ethics, that the most favorable construction possible should be placed on the most unfavorable appearances.

This venerable maxim of ethics has been ignored by both Drs. Mott and Beales in the present case. On learning from the patient that he ascribed his sufferings to Dr. Green's use of the probang, they at once adopted his asseveration, that Dr. Green had killed him; and this on no other evidence than the occurrence of emphysema; and hence joined the outcry against their brother and equal in the profession, even before the death of their patient, instead of suggesting, as they ought to have done, that the patient's suffering and danger might possibly turn out to have some other cause.

But, Mr. President, I propose to show, that had these gentlemen waited for the post-mortem they anticipated, before committing themselves to the theory of the patient, that the trachea or larynx had been "perforated by Dr. Green's probang," they might have escaped the unfortunate dilemma in which they have involved themselves.

The gentlemen concerned must surely now perceive, since the revelations of their own post-mortem, that their theory and that of their patient was disproved, when they not only found no abrasion or perforation in either trachea or larynx, but both organs a "perfect type of health." I submit to the gentlemen themselves, whether they had not then a fitting opportunity at once to proclaim the innocence of Dr. Green of any violence inflicted by his probang, and fully to exonerate him from any direct or indirect agency in causing the death of the patient, which charge they had previously countenanced if not authorized?

Mr. President, is it too much that Drs. Mott and Beales shall consent to this statement of fact—that when they discovered that emphysema in connection with the rumor, that the wind-pipe had been ruptured by the instrument of Dr. Green, it was perfectly natural for them, and would be natural for us to ascribe that emphysema to a wound of the trachea?

Had they at this discovery of the error of their patient and themselves, finding no lesion of the air-passages by the probang, at once acquitted Dr. Green, to the family and friends, of all participation in Mr. Whitney's death, all the public clamor and all the agitation of this Academy would have been prevented. Is it too much to ask that they should admit this error and correct it now? Sir, I do not despair even yet, that these gentlemen may review and retrace their steps, and hence I proceed to remark upon the progress of their secret autopsy; nor can they complain if I infer the *animus* which impelled them, from their manifest purpose to implicate Dr. Green in whatever causes of death they might find; and this after the larynx and trachea were found uninjured, and their anticipations in this respect were disappointed.

Their next exploration was into the throat, to discover what caused the protrusion of the thyroid body and prevented both deglutition and respiration. Behind the larynx and under the deep cervical fascia pus was observed to follow the scalpel, and they report an *abscess* extending a little laterally and posteriorly to the pharynx, which was "as large as a hen's egg." This was a large enough tumor, it seems, to close the oesophagus and reach over to the glottis, and even to bulge forward the trachea and thyroid body, and lead to the exclamation, "the largest larynx and trachea we ever saw."

DR. MOTT.—The trachea did not bulge.

DR. REESE.—Then the protrusion was only an enlarged protraction?

DR. MOTT.—That is all.

DR. REESE.—That won't save the gentleman, because this man was choked to death—he could neither swallow nor breathe. [Laughter.] "His breathing was performed very imperfectly, and deglutition was impossible." If they could not have found out what was the matter while he was living, surely they ought when he was dead. But in the post-mortem they find a cavity which they infer to be an abscess, and deglutition, they say, was obstructed by it. Unluckily, "this abscess had a hole in it large enough to admit two fingers," out of which the pus *ought* to have escaped by the *laws of gravity*. Nothing in it. [Laughter.] It was a cavity containing filamentous tissue. But

surely if it was empty, the tumor as large as a hen's egg could not have choked and suffocated the patient, as it undoubtedly did, unless it broke after death; or, as Dr. Sayre has shrewdly suggested, was opened during the post-mortem, by that hole of two fingers' width having been made by the scalpel—an inference which is authorized in the premises. The most uncharitable inference that could be invented was put upon that circumstance, viz., that that hole had been made by Dr. Green's probang. The abscess was just as much due to my cane as to the probang, and every man here understands it. If any man could be found who believed that an ordinarily prudent physician could, by introducing the probang, produce a rupture sufficient to cause the abscess or cavity that was found in Mr. Whitney, then I will surrender to him all credulity. The introduction of that probang could not by any possibility have produced an abscess in that direction. But as Dr. Green did not wound the larynx, he must have struck the pharynx, for as the doctors had committed themselves to the theory that the patient "died from Dr. Green's treatment," his probang must be the instrument of death. Now, I am persuaded that, except Drs. Mott and Beales, no other member of this Academy can believe this theory, and the profession at large will ignore such medical logic. The abscess was doubtless there before Dr. Green's operation, and accounts for the complaint of being hurt, in the unsuccessful attempt of Dr. Green to enter the fauces, on the morning before the patient's illness. It was not discovered then by Dr. Green, nor in two hours after by Dr. Beales, nor the next day by Dr. Mott, nor suspected by anybody until after the patient was dead!

May I now submit to the gentlemen themselves whether such abscesses do not often occur from *other causes* than the wound of a probang? Have they not seen them? (Dr. Reese here related a recent case and its result.) Is it, then, too much to ask them why they do not now correct their error, and admit that this abscess arose from constitutional causes, or some other morbid agency?

But now the thorax was opened, and behold, an abscess or "cavity" was found in the left lung, a nondescript affair, which, however, confirmed Dr. Green's diagnosis of a pulmonary lesion, made two months before. Both Drs. Beales and Mott insist that this anomalous "cavity" was not tuberculous, as Dr. Green regarded it, but yet it was found at the precise spot that the latter had detected and recorded it.

Then, again, in that anomalous cavity of the lung they found what they supposed was sloughing, which, as there was an *animus* in the

matter, must of course have been produced by Dr. Green's nitrate of silver. An ulcerated degeneration had occurred through the pleura, and now for the first time the source of the mysterious emphysema was disclosed; and the idea was next started, that Dr. Green's injection into the lung of *one and a half grains of nitrate of silver in a drachm of water!* some 15 days before, had occasioned all this chronic mischief; for Dr. Green was to be made accountable for the cause of death wherever it might be discovered. Sir, I am persuaded that every member of this Academy, who has seen or heard the report of this post-mortem, will concur with me, that this pulmonary lesion must have existed for months, perhaps years before, and in a *depraved constitution* was all the while tending by a fearful proclivity to the result, which, by a contingent coincidence, developed itself with the formidable symptoms of collapse which Dr. Beales found on the 14th of December.

Now, was not this ridiculous? Then again, we come to the certificate. Now, in all the courts of England and this country, the certificate of death officially given by the physician was invariably relied on. It is the legal and final record, behind which no judicial tribunal can go, given as it is, on our professional oath. Now what did Drs. Mott and Beales do? It would not do to say that Mr. Whitney died of perforation of the trachea, for there was none. If it was an abscess, then the presumption was that it existed before. If it was rupture of the pleura, then these physicians were in the same position with Dr. Green. What then did they do? Why, they gave a certificate that I would undertake to say was not on record in the statistics of any sanitary office, either in this country or in Europe. I defy you to bring me, from the mortality tables of this or any other country, a single instance in which the cause of death was recorded as effusion into the lungs—and yet that is the certificate. Now, did Dr. Green produce this effusion into the lung? Was it caused by introducing the probang to cauterize the larynx, or was it rupture of the pharynx, or was it caused, if it existed, by that disease of the lungs which must evidently have been of longer standing, must have existed more than a week, a month, and even a year, from their own description? Such a morbid condition as they make out never existed since the creation, unless it resulted from chronic disease, as this undoubtedly did. The effusion of the lungs was, therefore, the consequence of that disease, with which the probang had nothing to do.

Now, they might have given a certificate which would have protected Dr. Green, honored themselves, and screened the profession and

the Academy from public clamor and its consequences. Was it not in the power of these gentlemen to say he died of a complication of diseases terminating in abscess, which caused suffocation? For he died as everybody dies, for want of breath—suffocation. The proposition that he (Dr. R.) would make, was this: that Drs. Mott and Beales were perfectly justifiable in having attributed the emphysema to the rupture of the trachea, from the testimony then in their possession, until they made the post-mortem; and that, having made the post-mortem, they had been satisfied, and were satisfied now, that the man did not die from that cause. Indeed, neither have insinuated that he did. It followed then, inevitably, that if he died from any disease of the trachea, it was not from Dr. Green's treatment. Had they given a certificate to cover that cause, in truth, declaring the facts in the case, and which they could have constructed at their own pleasure, they could have framed it so as to prevent any of the clamor that had been raised; and he thought that they regretted, and saw cause for regret, that they did not take that course. Now, could not this matter be arranged in the Academy without having recourse to the offensive measures proposed in the resolutions? Why not adjust it in a way far more creditable to the Academy, making the resolution more specific, and implicating nobody? He thought it could. He thought it was not asking too much of Dr. Mott or Dr. Beales, to say that the man did not die of any perforation of the trachea. That would put a veto on the scandalous publications that were going through the country.

Now, these gentlemen should say that Mr. Whitney's death might have arisen from other causes. No man ought to say that his disease was only a week old, or ten days old. I have not met the man in the profession who entertains that idea at all. I assert, that the use of the probang is legitimate treatment, endorsed by the highest authorities in the world, both medical and surgical, and why not acknowledge it?

Now, Mr. President, my object is to be a pacificator if I can. The position is not an enviable one to which this Academy is tending. I desire to deliver it, if possible, from its impending danger. I have no preference for any particular form, but I want the Academy to state what it believes to be the truth, viz., that in regard to Mr. Whitney's death no blame can justly be attached to either of the medical men who had his case in charge; though as to the position respectively assumed by these gentlemen towards each other, he was obliged to de-

clare his opinion, that Drs. Mott and Beales had considerably the worst of it.

DR. SAYRE said he had no wish to do injustice to Dr. Mott or Dr. Beales, but inasmuch as they had said boldly that they believed Dr. Green killed the man—

DR. MOTT—O no, no.

DR. SAYRE again asked Dr. Mott to read the last few lines of his statement; he had already asked for it three times.

Some confusion here arose, and several motions made, but not entertained by the chair, or withdrawn, among which was one to lay the whole matter on the table.

DR. SAYRE then proposed to withdraw his resolution, and allow Dr. Reese to present his plan.

DR. REESE said he had no definite proposition to make.

DR. SAYRE was willing, in addition to substituting for "charges" "opinions," to so word his resolution as to exonerate Drs. Mott and Beales, inasmuch as Dr. Reese did not propose a plan.

DR. MOTT—I believe it is before the public (not that we have done it, but it has been done,) that Mr. Whitney's death was owing to our not detecting the abscess, and opening it. Now, I feel that I made that post-mortem report from the best of motives, and with the proper animus. I will always under all circumstances do so, and with a proper regard for professional men. I stated the facts fully and fairly, as Dr. Beales knows, and I do not like that anything should be said which would imply censure of Dr. Beales or myself for not having detected the abscess. I have said enough here probably to satisfy some that it was not in the power of man to detect it. Why should a resolution be passed which shall reflect at all upon us, because the papers have set forth the fact? We never have set forth anything publicly, and but for the indiscretion of some men nothing would ever have gone into the public prints. Neither Dr. Beales nor I have been the author of anything that has appeared in public.

DR. SAYRE—I can fix the resolution in a moment.

DR. MOTT—Don't, I pray, blame me for killing that man, because I have killed enough. [Laughter.]

DR. GREEN—I would have you so word it that blame should fall upon myself, rather than Dr. Mott.

DR. SAYRE—I think Dr. Mott's explanation in regard to the abscess and the emphysema is sufficient. There is now no charge against Dr. Mott or Dr. Beales in the resolution, as modified.

DR. MOTT—I have had my full share of killing, and now, just at

the close of my life, I don't want this case laid at my door. I reciprocate the remark of Dr. Green by saying that if he is disposed to take the charge upon himself, I am sure I would not allow it. He knows I told him at my house not to bring this thing before the public nor the Academy, but to let it pass over in silence. I conjured him to do so. I am not the author of bringing it before the public; on the contrary, I declare at this moment before you all that Dr. Green's friends (he might well say, perhaps, "Save me from my friends!") unfortunately brought this thing before the public. I am the last man to do such a thing. I endeavored to cover it up, until I was driven into a corner.

DR. GREEN—Neither myself nor my friends brought it before the public or the Academy. I was called upon for an explanation by the President himself—to give a history of the case. I did so. Several members of the press called upon me for the post-mortem examination. I refused peremptorily, and a gentleman here, a member of the press, will testify to the fact that I refused to allow anything to go from me to the public prints. Nor have my friends ever done anything for me in regard to these publications. The editors have done these things themselves, and neither myself nor my friends have to be blamed for any part in it.

DR. FRANCIS—One single word. I like the spirit of compromise. The Academy is in a great difficulty. It is obvious to every man in this house—however desirable it would be to have no imputation against Dr. Green; but, on the contrary, perhaps a laudatory expression of his eminent professional career—that this resolution, if passed, would imply censure toward Drs. Mott and Beales. The papers have already pronounced these gentlemen to have been accessory to the death of Whitney. Dr. Green ought not to have been accused as he has been, but entirely exculpated from blame. Nevertheless, if that resolution passes, Drs. Mott and Beales will stand as mischief-making men in the case of Whitney.

DR. WATSON, vacating the Chair, said: I concur in the opinion expressed, that this resolution would be a vote of censure against Drs. Mott and Beales. I felt from the first, that it would not be a proper course to discuss this matter in the manner it has been done. It should have been discussed by gentlemen who understand pathological anatomy, and we should then have had their calm, considerate opinion upon it. We have had a great deal of talking, but no pathology.

Now I feel called upon, under the circumstances, to make a statement concerning the patient's habits of life. Mr. Whitney was in the

habit of drinking to excess in early life. Alcohol, it is known by medical men, will produce disease in the blood-vessels, and, interfering with the circulation, it will occasionally cause gangrene in the extremities of the arteries. Whitney had been sick a year. What ailed him? He had had a cough all that time. He had been under treatment for that cough. Was it a consumptive cough? Certainly not. The pathology, I think, clearly shows that it was not a tubercular disease. The constant habit of drinking prevents tuberculous disease in persons predisposed to it. Whitney lost some brothers by consumption; but, by his habit of drinking, he seems to have changed his diathesis and produced another tendency. I have seen a patient with such a cough go on for months. It is invariably attended with foul breath. Now I have been informed that Whitney was remarkable for a very foul breath. Put, then, these things together—the habit of using intoxicating drinks, foul breath, a cough lasting for many months, and no tuberculosis in the lungs. Take these data, and what is the result to be expected? Circumscribed gangrene of the lungs. This man, therefore, in all probability, has had that circumscribed gangrene of the lungs from the commencement of his cough. That has gone on affecting his breath until he has finally coughed off the gangrenous matter, which has left a cavity behind. That cavity has taken on a cicatrizing process, presenting a surface covered with granulations. The cavity in the lungs, therefore, was, as I suppose, the result of circumscribed gangrene.

And I have seen in post-mortems that very thing. I have seen nearly the whole of one lung sloughed off. Sometimes you will find it entirely so. I examined a man some years ago who died after being under my care. He got well, so far as the gangrened lung was concerned, but he died of some other disease. He had become cured of the local affection; the cavity was in process of contraction and cicatrization.

Now my diagnosis, then, in the case of Whitney, is simply this: For many months he had a disease in the substance of the lungs produced by intoxicating drinks, and there was circumscribed gangrene. This will explain the diagnosis that Dr. Green made when he was first called. He found a cavity in the lungs with mucus in it, if I understand him correctly. It is very easy for a person to suppose, where there is such a cavity, that it was produced by tuberculous disease. Ninety-nine in a hundred would say so. There is no reason to find fault with Dr. Green, provided it was not tubercular disease. Then we know that a man coughing and raising mucus will have a certain amount of turgescence from an excess of blood in the mucous surfaces at the top

of the larynx. It is likely when the Doctor saw this patient he did find this follicular enlargement. The changes might have been caused by the emptying of the abscess in the lung.

With regard to the treatment of Dr. Green, I will say nothing. You will remember, however, that among his recipes are sarsaparilla and proto-iodide of mercury. Those were not remedies for tuberculous disease. Doctor, why did you give syrup of sarsaparilla and proto-iodide of mercury?

DR. GREEN—I refrained from stating out of regard to the patient and his family, supposing every medical man would understand why I gave it.

DR. WATSON—That is enough, Dr. —.

DR. WATSON—I believe every medical man will acknowledge that he has now and then met with an accident which produced death. If, therefore, in introducing this instrument, the doctor might have abraded the mucous membrane or the muscular tissue of the larynx, what of it? If Whitney had been a healthy man it would have healed up; but being of a broken-down constitution the disease went on and produced a sloughy abscess, with constitutional irritation and disturbance in that abscess, which caused a febrile excitement, resulting in an acute bronchitis and affection of the upper lobe of the lungs—all the result of the patient's bad constitution.

I cannot, however, get over the conviction, that unless you charge these gentlemen with direct fabrication, it is proved to an absolute demonstration that there was an abrasion caused by the sponge probang. At the same time I do not cast any blame on Dr Green—it might have been an accident. This is my view of the case.

Dr. A. K. GARDNER submitted the following preamble and resolution by way of compromise, which seemed to be regarded as introduced with a view to save the accusers as well as him whom they accused:

Whereas, Various statements made by the public press and otherwise have reflected on the reputation of Dr. GREEN, and of Drs. MOTT and BEALES, as having conducted by their treatment to the death of Mr. Whitney; therefore

Resolved, That we, the Academy of Medicine, after a full examination of the reports of the case and the *post-mortem* examination, do consider that his death was in nowise the consequence of improper treatment, but was the unavoidable result of a complication of diseases.

This amendment was accepted by Dr. Sayre, put to the house, and passed by a vote of nearly nine-tenths of all the members—which, on motion of Dr. Francis, was made unanimous.

The Academy then adjourned.

EDITORIAL AND MISCELLANEOUS.

— A most unusual and unparalleled proceeding occupied most of the last three sessions of the Academy of Medicine. A gentleman, a son of one of the wealthiest of the citizens of New York, had been for two months a patient of a physician of this city, whose reputation is of both hemispheres. After one of the visits to this physician's office he was suddenly taken ill, and upon returning home he sent for his former physician. Some alarming symptoms supervening, they were attributed to an operation performed by the first physician, and, from the social position of the family, the opinion of the second, at first cautiously expressed perhaps, soon became a rumor, and passed through all the ramifications of society. The patient finally died, and in the mouths of the people, and even in the opinion of those of the profession who had not heard the real facts of the case, his death was laid at the door of the first physician. The most ridiculous and unheard-of reports were circulated, till at last the rumor found its way within the walls of the Academy, and the hearing of the statements of all the physicians engaged in this case constituted the principal occupation of three of its sittings.

In this number of the MONTHLY will be found a full account of the transactions of the three sessions, as reported in the *Times* and *Tribune*. The accuracy of this report is unquestioned, and it must therefore stand as the actual proceedings of the Academy. It is now history, and will serve in the future to illustrate the condition of medical ethics and medical science in the City of New York in the year 1859.

It is a pertinent question to ask, how came the public so interested in the death of this gentleman? A few words of explanation will add an introductory chapter to the already written history, and will show how soon, in this age of steam presses and eager reporters, everything which catches the ear of rumor is laid bare to the eye of the world.

We now invite the attention of our readers to the proceedings of the Academy, while we present this introductory chapter, for it is so connected with the history of the case that, like the preface of a book, it is suggested by the case itself.

The statement by Dr. Green of the history of the case of Mr. Whitney, as long as he was under his care, tells its own story.

Then follows the statement made by Drs. Beales and Mott, with explanatory remarks by Dr. Beales. From this we learn that the excitement of the patient and his family was intense; that the patient

attributed all his ills to the treatment received from Dr. Green; so positive was he of this, and so sure was his family of it, that had Dr. Green presented himself at the house he would have been met by personal violence. This feeling was not quieted by the family physician, but the excitement was permitted to express itself in violent criminations of Dr. Green. Fifteen hours after his last visit to Dr. Green, emphysema of the neck and face was observed, which gradually extended over a portion of the trunk. The patient was sure Dr. Green had injured his throat, and the emphysema was attributed to this injury. But how was the patient to know that any wound about the throat would produce emphysema? assuredly, only through his attending physician, who could account for it in no other way, and without looking for any other lesion took the intemperate expression of the patient as evidence that the windpipe had been seriously injured. Here, then, was the source of the rumor of perforated windpipe; it was the physician's diagnosis, and no sooner expressed than it was taken up by a hundred tongues, and passed from mouth to mouth with the rapidity with which bad news always flies. Through the whole week of the patient's last sickness this story gained credence. Each day's symptoms confirmed the previous day's rumor. At last the patient died, and a Sunday newspaper in chronicling his death attributed it to the unskillful hand that had perforated the windpipe. Correspondents of papers, from without the city, taking up the hue and cry, which had then become loud and deep, sent abroad their news item, and back from city and village came the echo of death from punctured windpipe. The truth becoming known here, a flat denial was given by one of our city newspapers to this unfounded rumor. Here the matter rested till brought before the Academy.

With one single exception—that just referred to—the newspaper reports were all antagonistic to Dr. Green, so that the “suspicious source” of these rumors must be manifest to all who read the history of this case.

This only in the way of preface. We now come to the consideration of the case itself.

And first of Dr. Green's statement: Oct. 25, Mr. Whitney was examined and operated upon by Dr. Green.

Diagnosis: Tubercular softening under the left clavicle; throat granulated and inflamed; left tonsil slightly enlarged and ulcerated; epiglottis thickened, and its border whitened by a line of erosions. Treatment: “Enlarged and ulcerated portion of tonsil was removed;

pharynx and sub-tonsillary fossæ, and the border of the eroded epiglottis, were cauterized."

This was the treatment pursued on the first day. Oct. 26 and 27 the local treatment by the probang was extended into the glottis. Nothing was done between the 27th October and the 9th November, when treatment was again renewed, to be interrupted till the 18th November. At both of these latter visits the local treatment was the same as that used on Nov. 27. On the 20th Nov. another physical examination was made, and a diagnosis similar to that given on the 25th October was the result. Then followed an interruption of two weeks, when on the 4th December another application to the larynx was made by the sponge probang. Dec. 6th, the gum elastic tube was passed down the larynx and trachea, "and a drachm of the nitrate of silver solution, of the strength of fifteen grains to the ounce, was injected into the left bronchus." Dec. 9th, patient called again, was better, with less cough and diminished expectoration. He desired the tube to be passed, and the injection to be made at this visit. It was not used for reasons stated by Dr. Green. The patient came back on the 14th, his last visit, when the sponge probang was used.

This ends Dr. Green's record. In it we find a diagnosis clear and distinct; a plan of treatment founded on that diagnosis, and consonant with Dr. Green's views.

The sponge probang was used at every visit, with one exception, (Dec. 6,) when the tube and injection was used, much to the patient's satisfaction and relief.

Here commences the record of Drs. Beales and Mott. It is prefaced by Dr. Beales with a distinct avowal of antagonism to Dr. Green, and with a controversial animus, which should be foreign to the discussion of such a subject.

Reviewing the history of the case, as furnished by Drs. Beales and Mott, we find no diagnosis, no evidence that the nature of the difficulty under which the patient suffered was known to the attending physicians; but we do know that their diagnosis was perforated windpipe, from the reports which, as we have already shown, came from the family, and eventually found their way into the daily papers, and were carried into all parts of the country. We know it too from the post-mortem examination, for this perforation was sought for by them, and they expected to find it; a red point in the larynx, a little below the left chorda vocalis, led them to exclaim: "There is the point of laceration of the mucous membrane, by which the air has escaped into the cellular tissue to constitute the emphysema." On close inspection, and

wiping the part with the sponge, no abrasion nor aperture could be discovered.

In all the history we find no record of any examination of the chest having been made, no suspicion of any lesion in that region, no note of any remarkable characteristic in the expectoration; in fact, no evidence whatever that their attention had been directed to the lungs by the symptoms of the patient.

On Dec. 17th, and following days, he is said to have had considerable *mucous* secretion, which interrupted his respiration and gave him great trouble to expectorate, and was referred to the throat.

Impressed with the idea of a punctured windpipe, they could discover no other cause for the emphysema, which appeared early in the morning of the second day, fifteen hours after the last visit to Dr. Green.

Nor do we find any diagnosis of any special lesion in the throat, until the 19th, when we read from the record that "it is certain there is some serious lesion in the vicinity of the glottis," though the character of that lesion is not stated. That lesion they supposed to be a laceration of the windpipe, as we have shown. Early in the morning of the 21st the patient died, according to their record, "partly from exhaustion, partly by asphyxia."

From this we pass to the post-mortem examination. An abscess was found "about the size of a large hen's egg, and extending a little in front of the pharynx, and downward and below the thyroid cartilage. At the upper and posterior part of this abscess there was an opening into the pharynx, large enough to admit the end of the forefinger." The larynx and trachea were declared to be "natural and healthy," without "an abrasion." In the lungs, "just at the root," an open cavity about the size of a small walnut, of a reddish brown color and irregular villous surface, as though a slough had separated. At the upper and anterior part of this cavity there was a small opening through both pleuræ.

The upper lobe of the left lung was mostly in a state of hepatization, and the pleura lying over this part of the lung was covered with "soft, *strumous-like* fibrin," which at first glance was taken for white thick pus.

Two prominent lesions, therefore—an abscess in the pharynx, and a cavity in the left lung, neither of which had been discovered or suspected during life, and a healthy and uninjured windpipe, when a punctured windpipe had been supposed to exist.

In connection with this point we will simply draw attention to the singular incompleteness of the autopsy. Neither the cartilages of the

larynx, nor the vertebræ, nor the intestines, nor any other organ, save the lungs and the internal surface of the larynx and trachea alone, were examined. Yet upon this meagre examination a positive opinion is expressed.

Pursuing this analysis further, but not in the order in which the history of the case was given at the Academy, we reach the certificate of death given by the physician in ordinary, with the advice and consent of the consulting physician, viz.: *Effusion into the lungs*. The certificate given is a sufficient commentary on itself.

This completes the history of the case. In order to regard it from all points, we now propose to take up some of the statements made by Dr. Beales in his additional remarks, and to contrast them with the facts, as given in this short resumé, and with the statements of his colleague. We shall then draw our conclusions therefrom.

About the end of October the patient, who was then under the treatment of another physician for tubercular disease of the lungs, was examined by Dr. Beales, who pronounced his lungs free from tubercles. Here, then, is an error of diagnosis, either on the part of Dr. Green or Dr. Beales. We have seen that Dr. Beales not only made an error of diagnosis in the case already related, but failed to discover the formidable lesions which were the cause of the severe symptoms observed in the case of Mr. Whitney, and which eventuated in his death. A cavity, too, is found in the lungs, just at the point designated by Dr. Green at his first examination, (Oct. 25,) nearly two months previously. If this, then, is a tuberculous cavity, Dr. Green's diagnosis was correct, and Dr. Beales' wrong. That it was a tuberculous cavity Dr. Beales denies, and states his reasons, drawn from the post-mortem. In reply to this Dr. Green quoted an extract from Rokitansky's Pathological Anatomy, giving the exact description of this form of tubercular cavity.

The epiglottis, Dr. Green said, was thickened and eroded at the first examination, and it was cauterized. At the post-mortem it was found "extraordinarily healthy, and free from the slightest vestige of disease." We must conclude from this that the treatment must have been very favorable in its effects. But Dr. Beales thinks otherwise, and says that under the circumstances "I am forced to believe that Dr. Green erred in his diagnosis, and that these various operations were unnecessary and uncalled for." We hardly think this comes with a good grace from one who has fallen into an error similar to that he charges upon another.

Pursuing our reading, we find in the next sentence that Dr. Beales avows his ignorance of the effects of nitrate of silver on the substance

of the lungs, and yet he volunteers an opinion as to its effects, before closing the paragraph.

If he will study the proceedings of the Paris Academy of Medicine he will find that the very operation which he condemns as "at all times attended with extreme peril and risk of the patient's life," is safe, easily performed, and in daily use by the principal physicians of Paris, and commended by such as Trousseau, Depaul, Velpeau, and others in the treatment of some diseases of the air-passages in children. If he will read the periodical medical literature of our own country he will find that the probang is passed daily into and through the larynges of children with the greatest impunity, and with the effect of saving lives in those diseases where, before the introduction of this method of treatment, the mortality was almost certain. That a solution of the crystals of nitrate of silver, of the strength of 15 grains to the ounce of water, produced an ulceration of the lungs which resulted in a slough, no one, who knows the effects of the solution of the crystals of nitrate of silver, would assert.

That a slough or eschar could have been made at the "root" or apex, or superficies of the lung, by the injected fluid, and the patient exhibit no symptoms of any kind to warrant this assertion during the period of fifteen days which intervened between the operation and his death, we cannot believe. Eight days of this period he was apparently as well as he had been for several months, and even better than usual, according to his own statement.

The position of this "cavity" or "eschar" is badly defined. In the post-mortem it is stated to be "at the root, or at the commencement of the bronchial ramifications;" while Dr. Beales designates it in one place "as a shallow depression or scooping out of the actual apex or superficies of the lung," and in another place "a slough or eschar at the apex of the lung." We cannot reconcile these conflicting statements.

There are some facts in connection with this point of the case which were not presented to the Academy, and which may have some influence, both in illustrating the character of the cavity in the lung, and account for the abscess in the pharynx. For that reason we will introduce them here.

It is known that the injection into the lung was made December 6th. The patient after this was better. It is also known that on the 12th of December he drove a pair of horses some distance into the country on Long Island, dined with a relative, and returned to New York in the evening by the same conveyance. It was remarked that day by his friends that he appeared in better health and spirits than

they had known him to be in for many months. At this very time, according to Dr. Beales, a destructive sloughing of the lung was progressing, and yet no expectoration, no pain, in fact, no symptom to indicate it.

It seems to us that this drive into the country was the starting point of the abscess in the pharynx, which was in its incipency on the 14th, and therefore the whole pharynx was sensitive to the application of the probang, and yet it was not sufficiently developed to attract attention. This abscess, Dr. Beales says, has been called a *chronic* abscess, and he calls Dr. Green to account for so naming it. We find no record in the whole transactions that this has been so called by Dr. Green or any of his friends, and we conclude that it is, therefore, only a "man of straw" which Dr. Beales has ingeniously set up for the purpose of demolishing, as he attacks this abscess most unmercifully—*on paper*.

Dr. Beales makes another charge against Dr. Green, that on the 14th December "the pharynx was accidentally lacerated by the probang." Into this laceration, says Dr. B., "doubtless portions of the various foreign bodies he attempted to swallow, food and medicine, were forced," and as a result, "sloughy abscess." We find no mention in the post-mortem that any portion of food or medicine the patient had taken were found in this laceration, and "doubtless" this is a mere hypothesis of Dr. Beales, and founded upon the same basis as his assertion relative to the effects of nitrate of silver upon the substance of the lungs.

It would be well to inquire, before making such an assertion, if an instrument introduced into the throat, through the mouth, could be brought into contact with this portion of the pharynx with force sufficient to produce a laceration of the mucous membrane, however slight. For our part, we do not believe it is possible, and the opinion expressed by Dr. Mott would seem to sustain it; for he said in the debate which ensued, that speaking "anatomically, that abscess could not be reached *per orem*—through the mouth;" and in another place, "that any man, knowing the anatomy of the pharynx and larynx, would say immediately that that abscess could not have been got at by the fauces, so as to have been opened." It seems strange to us, then, how Dr. Beales could account for its being produced in the manner he suggests; for if an instrument could reach it to produce it, another assuredly could reach it to open it.

We believe that the theory—for theory alone it is—which Dr. Beales has erected is incorrect unsubstantial, and without a shadow of a foundation.

There are other incongruities in the remarks of Dr. Beales which we shall also point out, for the reason that we believe great injustice has been done Dr. Green by the first false reports, which could have been quieted had the attending physician been so disposed to do—and because these incongruities will show the animus with which Dr. Beales closes his remarks in the following language: “This is all I think it needful to say in answer to these unmerited and disgraceful inuendoes.”

And first, of the abscess in the pharynx. This abscess was filled with pus, and destroyed filamentous tissue. It was confined by the deep, dense cervical fascia, and yet so full as to give a remarkable prominence to the thyroid cartilage. How this was possible, with a hole in the abscess as large as the end of the forefinger, is beyond our comprehension. The pressure of the parts alone, not taking into account the horizontal position of the patient, would cause the contents of the abscess to seek an exit wherever the opening might be, while the horizontal position would have favored this flow had there been an opening there previous to the death of the patient. We regard this statement as *prima facie* evidence that the opening was a post-mortem one, as all who are in the habit of making necroscopic examinations know how easy it is to make accidental incisions when removing hollow organs, and how difficult it is to avoid tearing their walls.

In order “doubtless” to make his case a very strong one, Dr. Beales says that “not the slightest sign of any chronic disease in or about the lung was found;” and further states what was supposed to be unanswerable, “that so striking was this fact, that Dr. Mott told the family after the post-mortem examination that we had not seen any disease that might not have been produced within a week.” This, therefore, releases the operation of the catheterism and injection from any participation in the disease of the lung, or places Dr. Mott and Dr. Beales in a position of antagonism; for the operation referred to was performed fifteen days before the death of the patient, and eight before the commencement of his fatal illness.

Another point upon which Dr. Mott and Dr. Beales are at variance, refers to the question of medical ethics and medical courtesy. At the sitting of the Academy of the 5th of January, Dr. Mott said, “that he had proposed, as had Dr. Beales, that Dr. Green should be called in during the progress of this case, which was not assented to by the family.” At the sitting of January 19th, Dr. Beales says that “had Dr. Green shown any sympathy for the family, &c., it would have afforded an opportunity to Dr. Mott and myself to have introduced

him. Under the circumstances, it was no pleasant thing to ask permission of the family, and I frankly allow, *we* did not."

Many other incongruities and conflicting statements could be pointed out, but these are quite sufficient to show their value, and to point the moral, which may be drawn from Dr. Beales' closing sentence, already quoted.

Altogether, this is a most curious case in its developments, and those of our readers who have followed us through the analytical argument we have made, from the very words used by the parties, will agree with us, that it was a most unusual and unprecedented proceeding. The unscientific and incorrect certificate of death—the excuse given, that of desire to shield Dr. Green, when all the harm that could reach him had already been accomplished by the thousand vague reports, is a most singular development of the customs and manners of the profession here.

To us the case seems perfectly clear. We do not believe that the lesion in the pharynx, or that in the lung, could in any manner be attributed to the operations of Dr. Green. The abscess in the pharynx might, and probably would, have occurred had Mr. Whitney never seen Dr. Green, nor had his throat operated upon. Several of a similar character, and in nearly the same location, occurred in this city at the same time. The cavity in the lungs, we believe, was a tuberculous cavity situated near the surface of the lung, surrounded by tuberculous hepatization, and by a singular coincidence it burst in an access of coughing into the pleural cavity, causing collapse by the effusion of pus and air into the pleural cavity. From the pleural cavity the air, after a certain time, gradually forced its way through the opening in the costal pleura at the point where the two pleuræ had been slightly adherent, and thus the time intervening between his first collapse and the appearance of the emphysema can be accounted for. This is not an unusual occurrence, and is therefore not a mere hypothetical case.

The opening in the abscess of the pharynx we believe to have been a post-mortem opening, for we find no evidence either in the history of the symptoms or in the progress of the case to warrant us in entertaining the idea that it existed there before.

There are a few thoughts as regards the effect of such a discussion both upon the profession and the public, with which we should like to close our remarks. As, however, we have already taken up considerable space with the subject, we shall defer these to another time, should there be occasion to return to it.

The foregoing remarks were prepared before the last meeting of the Academy, as a resumé of its two previous sittings. We have delayed issuing this number of the MONTHLY, in order to complete the proceedings, which were continued at the first meeting in February. For the purpose of accomplishing this, we have added sixteen pages to our usual issue.

The last sitting of the Academy offers nothing essentially new to remark upon, except the singular method of argumentation employed, and which may be formularized thus:

The abscess in the pharynx was first an abscess which could not have been discovered; and if it had, it could not have been opened; and if it had been opened, it would have been attended with no beneficial results.

Again, this abscess is filled with pus and broken-down filamentous tissue. Then it is no longer an abscess, but a *cavity*, filled with a little pus and disintegrated cellular tissue; and, finally, it is an empty cavity, with a *little pus* at its lower portion, and disintegrated filamentous tissue about its sides.

The lesion in the lung has also its protean characteristics. It is first a cavity, and then a mere scooping out of the superficies of the lung; first at the root, and then at the apex of the lung.

Before finally dismissing this subject, we have one word to say relative to Dr. Watson's theory. We believe it to be untenable, from his own showing. We take him at his word, that the lesion in the lung was of long duration; not of a week, nor a month's standing. Why should it be the result of gangrene? Because the patient was in the habit of drinking to excess in early life; because he had a cough and foul breath. This is insufficient ground for such a theory, particularly when we learn, as Dr. Watson states, that several members of his family had died of tubercular disease of the lungs. The reply to Dr. Watson's question relative to the medical treatment employed by Dr. Green, is another reason for us to doubt the correctness of Dr. Watson's theory. It is evident that there was a cachexia established in this patient, which very frequently terminates in tubercular disease. There is no necessity, then, for seeking for an unusual occurrence to account for his symptoms. The foul breath (which was not remarked before) and cough can be accounted for far more easily than by supposing a gangrene of the lung. From the history of the patient, then, from the history of his symptoms, and from the post-mortem appearances even, the inevitable conclusion to our minds is, that the lesion of the lung was a tubercular lesion.

J. H. D.

To the Subscribers to the N. H. Journal of Medicine

Circumstances have rendered it expedient to suspend the publication of the *Journal*, and in taking leave of my readers I beg to recommend to their notice a journal which I regard as giving more practical information for the same money than any other; I refer to the "AMERICAN MEDICAL MONTHLY," edited by Dr. Edward H. Parker, (the first editor of the N. H. Journal,) and Drs. J.H. Douglas, of New York, and L. H. Steiner, of Baltimore. At my request, specimen copies will be furnished to the subscribers to the N. H. Journal, and I will receive and remit any subscriptions which may be sent to me, in any case when it is more convenient than to remit to New York direct.

GEORGE H. HUBBARD.

Manchester, N. H., Jan. 1859.

Books and Pamphlets Received.

A Treatise on Fractures. By J. F. Malgaigne, &c., with 106 illustrations. Translated from the French, with Notes and Additions, by John H. Packard, M.D. Philadelphia: J. B. Lippincott & Co. 1859.

Practical Dissections. By Richard M. Hodges, M.D., &c. Cambridge: John Bartlett. 1858.

Contributions to Operative Surgery, and Surgical Pathology. By J. M. Carnochan, M.D., Prof., &c. With illustrations, drawn from nature. Part 2. Philadelphia: Lindsay & Blakiston. 1858.

A Treatise on Human Physiology, designed for the use of Students and Practitioners of Medicine. By John C. Dalton, M.D., Prof., &c. Philadelphia: Blanchard & Lea. 1859.

The Physician's Visiting List, Diary and Book of Engagements, for 1859. Philadelphia: Lindsay & Blakiston.

The Physician's Hand-Book of Practice, for 1859. By William Elmer, M.D. New York: W. A. Townsend & Co.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part 38. Philadelphia: Lindsay & Blakiston. 1859.

Report on Moral Insanity in its Relations to Medical Jurisprudence. By D. Meredith Reese, M.D., LL.D., &c. (From the author.)

Report on the Nervous System in Febrile Diseases, and the Classification of Fevers by the Nervous System. By Henry Fraser Campbell, A.M., M.D., &c. (From the author.)

Report on the Functions of the Cerebellum. By E. Andrews, M.D. (From the author.)

Report on the Treatment best adapted to each variety of Cataract. By Mark Stephenson, M.D. (From the author.)

Observations on Malarial Fever. By Joseph Jones, M.D., &c. (From the author.)

Transactions of the Am. Medical Association. Vol. IX., 1858.

Archives of Medicine. Edited by Lionel P. Beale, M.D. No. 3. London: John Churchill.

THE AMERICAN MEDICAL MONTHLY.

MARCH, 1859.

ESSAYS, MONOGRAPHS, AND CASES.

Mucous Flux Associated with Rheumatism. By FRANKLIN BONNEY,
M.D. Hadley, Mass.

While it is a legitimate and satisfactory result of pathological investigations, that new diseases have been discovered and their diagnosis made clear from those with which they had been confounded, at the same time it is ascertained that, in many instances, diseases which seemed entirely dissimilar, and connected by accident only, if at all, have a common origin; and as they depend for their existence upon some general morbid influence, they must be removed by the same counteracting agency. The practical result is, in each instance, that our aim is surer of its mark—that instead of endeavoring to combat symptoms fugitive and obscure in their character, which tantalize us from the uncertainty of their next aspect or locality, we get at the main position, which once carried the conflict is ended.

Of no disease can it more truly be said than of rheumatism, that a primary morbid condition may manifest itself in a diversity of forms, and which are not apt to be recognised unless the main position be kept in view. Formerly it was considered to be a simple disease, limited in its local manifestations: now it is getting to be understood as having a variety of expressions as to locality and symptoms.

If it be considered to be a blood disease, we may reasonably expect to meet it wherever a similarity of structure of tissue exists, but modified in symptoms and local phenomena, in accordance with the functions of the organ attacked. Dr. Dewees, in some previous numbers of the MONTHLY, has brought the subject into a very clear light. Having stated that the fibrous and sero-fibrous tissues are principally affected, he asserts that muco-purulent discharges are sometimes thrown off from the vaginal and urethral passages, that deposits occur in the brain and lungs, &c., and incidentally gives a significant hint, that the intestines must not be irritated in treating rheumatism, the bearing of which will be seen hereafter. Dr. C. Handfield Jones asserts that catarrh is a rheumatism of the mucous membranes—that is, if the same morbid influences were to be transferred, in their action to the vaso-motor nerves of the muscles and synovial membranes, there would be results analogous to those found in catarrh. Dr. Copeland also speaks of the same thing.

If this be true, it follows that mucous or muco-purulent discharges may be the result of rheumatic action upon any portion of the mucous surfaces of the body.

In illustration of this fact, I present a few cases, which, although not so complete as would be desirable, I think show that the intestinal canal is at times implicated.

Case 1st.—T——, physician, aged 35, of nervo-bilious temperament, and much worn down from long-continued loss of sleep, took cold September, 1857, and was attacked with rheumatism in the right shoulder and back of the neck. He kept about for several days, hoping it would pass off as it had in previous instances; but the disease extending, he was obliged to yield to it and take to his bed. The right shoulder, nape of the neck, the chest over the region of the heart, and the left ankle were the chief points of attack. The other joints were scarcely affected, but the disease clung to these points for months. For two weeks there was fever, but afterwards this mostly subsided. At the end of three weeks he noticed as he went to stool a discharge of mucus from the bowel, having much the appearance of white of egg with a little air intermixed; in a day or two this changed its appearance to that of matter which is sometimes seen on opening a ripe boil, a greenish white semi-fluid discharge, amounting to several table-spoonsful, and attended with considerable tenesmus. Fæces sometimes followed, but frequently there was nothing else in the morning; but two or three times a day there would be a movement of the ordinary contents of the bowels, unattended, however, by anything more than

a few shreds of tenacious mucus, excepting on two or three occasions, when pieces three or four inches in length, of a tubular membrane, resembling the false membrane of croup, were passed. There was at no time more than slight tenderness of the abdominal region, and that was mostly confined to the head and sigmoid flexure of the colon, and the ileum. Tympanitis was just perceptible. There was never anything that could properly be called diarrhœa, the fæcal movements being quite solid, or of a pultaceous character. When the latter condition obtained, there was usually an acid odor attending them. The patient was somewhat hurried in the morning by the call to stool, the fluid having apparently accumulated in the rectum, making it difficult to retain it on moving. No blood, save in a very few instances a slight tinge, was ever present. The tongue had a yellowish coat and reddish edges; the appetite was almost wholly absent, and digestion heavy. The pulse was slightly accelerated, and very soft, indicating a good deal of constitutional feebleness. The urine was tolerably natural. This condition lasted about six months, when improvement took place. But at the end of a year the rheumatic pains are not wholly gone, nor is digestion quite easy, but there is much more vigor. The relation of the two continues. When a slight accession of pain is taken on, the stomach suffers; when from any cause digestion is interfered with, more rheumatism is felt.

During convalescence ulcerations would occasionally show themselves on the tongue and cheek, attended with the usual symptoms of indigestion. This has, however, sometimes happened for several years past. It should be remarked that he has from childhood been subject to subacute rheumatic attacks, having had a severe attack of rheumatic fever at the age of six.

Having fairly tested the remedies usually resorted to, without benefit to the rheumatism, attention was almost wholly directed to the relief of the alimentary canal. Diet was closely regulated. Bread and milk with lime water for breakfast and supper, and mutton or beef with bread for dinner, were persisted in for months, and were relished better than anything else. The dietetic principles laid down by Dr. Chambers, in the London *Lancet* for 1857, for the relief of mucous fluxes from the intestinal tube, were followed as nearly as circumstances would admit, and their applicability was very evident.

A variety of remedies was tried, but none answered so well as the tinct. of *nux vomica* in 15 drop doses three times a day, and nitrate of iron in 10 drop doses. The *nux vomica* seemed to allay pain and

promote digestion. Sedative and astringent injections apparently aided in quieting the irritability of the rectum.

Case 2d.—W. H——, a young man aged 35 years, of a highly nervo-bilious temperament, spare in build, had in previous years been troubled with rheumatic and neuralgic pains, and also occasional disturbance of the stomach. In the spring of 1854, violent pain commenced in the left shoulder, and gradually passed down to the abdominal region, when a mucous flux came on attended with severe tenesmus. The discharge had the appearance of white of egg, occasionally though not often tinged with blood. Being of a remarkably energetic nature, and feeling the necessity of labor, he kept about his family operations, although feeling greatly debilitated. Not seeking advice regularly, and not detailing his symptoms fully, but little was known, medically, at the time of his case. He took scarcely any medicine, but was advised to pursue the milk diet, which he persevered with for months, nothing else being well borne. The rheumatic symptoms were not conspicuous for any great period, but tenesmus was always severe while at stool, which was several times a day. The discharge continued until cool weather came on, when improvement commenced, and he was soon well, and has continued so up to this date. On reviewing his case with reference to the point under consideration, he records the symptoms accurately.

Case 3d.—Mrs. B. H——, aged 60, of nervo-bilious temperament, with a tinge of the lymphatic, had chronic rheumatism set in twelve years ago, and suffered severely up to the time of her death, a few months since. Her joints were so much out of shape that she was almost incapacitated for any exercise. In reviewing her case, she stated that frequently she would be taken with pain in the abdomen, which was followed by discharges, which she had stated to her friends would lead her to suppose she had a sore in her bowels, had she not so often noticed the same. This was accompanied with looseness of the bowels. The mucous discharges would continue for some days, then cease for a time, to recur with the same array of symptoms.

Case 4th.—Mrs. L. B——, aged 63, nervous, bilious, and lymphatic, had formerly attacks of bilious colic, and also rheumatic and neuralgic pains, was taken last spring with severe pain in the vicinity of the stomach and liver, which passed to the back, and extended down to the extremity of the spinal column. This was soon followed by severe tenesmus, attended with a discharge of hardened fæces in small lumps, covered with a mucous secretion, and also by mucus itself.

There were never the liquid fæces of diarrhœa, but a constant and

tormenting repetition of the discharge mentioned, she being compelled to go to stool twenty or more times a day, each time feeling greatly prostrated. At times the face would get œdematous, as would the limbs. Under treatment the symptoms would subside, to return again. She is now in comfortable health, although liable to a recurrence of the same condition. Each attack is heralded with the pain in the side and stomach. The treatment most effectual in her case has been iron in the form of muriated tinct., or nitrate, nux vomica and chalk mixture, with vegetable astringents. Opiate and astringent injections have also answered well. Bread and milk with lime water answered best for nourishment.

Case 5th.—Mrs. F. B., aged 30, nervo-bilious temperament, had scarlet fever at the age of seven. From that time till the age of seventeen she had attacks every few weeks or months, of what appeared to be rheumatism and neuralgia combined. The feet and hands would be extremely painful and entirely helpless for days and sometimes weeks, when swelling would occur, and amendment take place. There was usually no great amount of fever present. The attacks would sometimes commence in the head, causing intense suffering, and not unfrequently delirium. Abscesses in the ears were a common result. Since the age of seventeen there have been no continued attacks, but there is scarcely ever an entire absence of pain. A cold, over-exertion, or nervous exhaustion from any cause, brings on severe pain in some part of the system. On such occasions it is common for her to pass mucus from the bowels, and at various times tubal casts several inches in length have been evacuated.

I have also recently had two cases—one a male, and the other a female—in which rheumatism manifested itself simultaneously in one knee and the abdominal region. In the male, the man suffered but a few days, while severe inflammation occurred in the sero-mucous membrane of the intestinal tube. In the female, the knee and mucous surfaces suffered together for weeks, and recovered at the same time. There was, however, no flux.

In addition to these cases, I find, on conversing with some other physicians, that they call up instances in which there seemed to have been some connection, although undefined, between rheumatism and affections of the alimentary canal. For instance, a neighboring physician states that he had a patient, a vigorous young man, taken down in August, with rheumatism, which was followed by dysentery; while the case of another patient, in the same street, the reverse was true.

Others recall instances of severe and obstinate diarrhœa following rheumatism.

Dr. Clark, in a recent discussion reported in the MONTHLY, mentions the case of a woman brought into the hospital, with rheumatic pains, &c., in whom a mucous flux was present, and whose intestines were found, on a post-mortem examination, to be lined with the exudation. And he also mentions other cases in which a similar discharge was present. He, however, attributes this difficulty to constipation. I am aware that constipation is sometimes attended with a discharge of mucus, sometimes glairy in character, and other times gelatinous; and also at times appearing like "scrapings," as termed by non-medical observers. This frequently happens to old dyspeptics, and in dysentery times it is very common to hear complaint made of the white of egg evacuations, which subside in a brief period, without being attended by sickness. Any obstruction to the action of the bowels, as pressure from tumors, &c., will also at times give rise to like morbid products. But the cases I have detailed, particularly the first three, presented a marked difference to the observer from those of flux arising from accidental causes. For instance, in one particular, in Case 1st, there was no difference in the amount of the abnormal secretion, whether the fæces were solid or pultaceous; in Case 2d the bowels were never constipated; and in the third there was diarrhœa.

Reasoning from analogy, it is easy to see that this secretion may be an effort to relieve irritation or inflammation, by reducing the plethora of a part, and taking from the blood any morbid agent which may be working mischief, while at the same time distant parts may be aided as by a species of counter-irritation. Any one who has had experience with neuralgia and rheumatism, knows that the liver and digestive tube are apt to be disturbed during their progress, and that medicines, as cathartics, &c., promotive of action in these organs, will sometimes produce rapid amelioration of symptoms. For example, a medical gentleman states to me that his wife, a strong, vigorous lady, will be taken in the night with such violent pains in the region of the sciatic nerve, that she walks the room in agony, for hours. A single blue pill, administered at once, will relieve the suffering in a short time; whereas, if it be not given, the pain persists.

I cannot hope to have presented the subject so fully or so clearly as I think it is capable of, through more extended observation. I have merely desired to call attention to the association of the symptoms detailed, in the hopes that the experience of others may be found

to substantiate the relation believed to exist, or otherwise to point out their true signification.

The Ready Method in Tetanus and Laryngismus. By WILLIAM C. ROGERS, M.D. Green Island, Albany Co., N. Y.

In the January No. of the AMERICAN MEDICAL MONTHLY, p. 53-4, is the report of a case of Traumatic Tetanus by Dr. James R. Wood, with remarks by Drs. Sewall, McCready and Markoe. After the report of the case Dr. Wood makes the following remarks: "He died comatose, on Sunday, without a rigid muscle and without a struggle. This case illustrates what has been frequently contended for here, that if a patient could be kept alive long enough to wear out the disease, being supported at the same time, he might in many cases be saved. If this boy had enough vitality left after the disease had exhausted itself, he would, in all probability, recover."

Was not this a case where Marshall Hall's *ready method*, accompanied by stimulating and nourishing injections into the rectum, or with the stomach tube, into the stomach, would have saved the patient's life? Dr. Wood remarks, that the patient "seemed to die of pure exhaustion." The *ready method* would have maintained all the functions of organic life in their integrity, the stimulus and food introduced would have been absorbed, the exhausted nervous energy would have thus been speedily renewed, restored, and, as a consequence, all the functions, vegetable and animal, organic and relational, would have resumed their normal activity.

The opium treatment seems eminently applicable to this disease, as much so as to peritonitis. The narcotic is absolutely demanded to allay the morbid activity of the nervous system, and if it should be pushed to positive narcotism where the *ready method* was demanded to sustain the suspended respiration, I believe that the ultimate result would be *life*, and not death to the patient. There are cases of narcotic poisoning on record in which life has been preserved and ultimately restored, by the persevering use of the *method* for many hours. Prof. Wm. P. Seymour, of Troy, was called to attend a man who had taken an enormous quantity of laudanum to destroy himself. When first seen respiration was nearly arrested, the patient was in a state of profound narcotism, breathing but four times a minute; and yet by persevering with the *ready method* for *four hours* the patient so far

recovered as to answer questions, and when the Professor left him to respond to an urgent professional call, he was conscious, breathing 12 times a minute, with good capillary circulation and a full, strong pulse. Had he made any exertion himself he might have recovered without further aid from the ready method, but he expressed his determination to die there and then, made no exertions to save himself, and when the doctor returned in an hour the patient had just expired.

In this case the ready method absolutely rescued a dying man from the jaws of death, and, if he had not persisted in *holding his breath*, might have restored the patient to life and usefulness.

In traumatic tetanus narcotics *must be used*, and if necessary *narcotism must be induced*; the latter must be substituted for the former, as more completely understood and more amenable to treatment.

While speaking of the ready method, allow me to cite cases of its efficacy in *laryngismus*. In the MONTHLY for May, 1858, (Vol. ix, No. 5,) I reported the case of my own child attacked by laryngismus, and saved after the persevering use of the method for *fifteen minutes*. This attack occurred March 30, 1858.

April 23d.—Another attack at 5 P. M., in which the method was used for about 5 minutes before respiration was sufficiently restored to enable the child to cry. At 10½ P. M. same day two slight attacks, from which the child recovered spontaneously. May 5, 6.30 P. M.—A slight attack with spontaneous recovery. May 26.—The child suffered from a fifth attack; the method was resorted to by his mother—I was absent at the time—and continued a number of minutes before the child could breathe naturally. May 28.—A 6th attack, very severe. The method was used perseveringly for 10 minutes before the patient attempted to respire, and it was 3 or 4 minutes more before he was sufficiently recovered to cry. June 15.—A 7th attack, very severe. The method was used from 7 to 10 minutes before respiration was restored. June 29.—The 8th attack, very severe and protracted. The ready method and cold to the epigastrium restored after many minutes of suspended respiration and animation. A diarrhœa now set in and continued for three or four months, which I held in check but did not arrest, and since then he has had no recurrence of the disease. The cause of the disease in his case was painful dentition.

Here were five attacks in the same patient, in which the ready method absolutely saved from immediate death in each instance. The respiration was each time instantaneously arrested, and no effort was made, and, I believe, none would have been made at respiration, if

that function had not been vicariously performed, for a period varying from 5 to 14 minutes. Blessings upon the name and memory of Marshall Hall. My child is to day a *living monument* of his genius, his industry, and his success.

Case of Absence of the Uterus. By R. B. WILSON, M.D., New York.

S. B., æt. 28, of medium height, light complexion and anæmic, came under my treatment as a patient at the Eastern Dispensary, in June, 1858, complaining of cough, which had existed for a considerable period, and had been preceded and accompanied by hæmoptysis.

On examination, found the chest flat and contracted, with dullness under the right clavicle; slight crackling and prolonged respiration. The action of the heart was feeble and irregular; pulse about 60. Her statement, that she had "never been regular," led to further investigations. At my request, Dr. E. R. Pulling, of this city, joined me in making an examination, which revealed the remarkable physical phenomena which she presents. Her voice is harsh and masculine. There is no development of the mammary glands.

The following condition of the organs of generation appeared. The mons veneris and labia externa are moderately developed, and present the usual amount of pubescence. The clitoris is very large, being about an inch long and strongly resembling the penis of an infant. The opening of the urethra is nearly in the normal position, but is *valvular*, there being no projection marking the meatus urinarius; the hymen is nearly rudimentary. The orifice of the vagina was so contracted as to render the introduction of the finger in making the first examinations a matter of great difficulty. On passing the finger into the vagina, it is found very slightly rugous in its lower portion, while in its upper part it is a perfectly smooth cul-de-sac with the exception of a single fold of mucous membrane a little anterior to the normal position of the os uteri. There is nothing resembling the uterine neck to be detected upon the most careful exploration. On introducing into the bladder and rectum, respectively, sounds slightly bent with the interior of their curves looking towards each other, and causing their points to approach at distances varying from 3 to $4\frac{1}{2}$ inches from the external orifices, and giving them alternately slight lateral motions, the impression conveyed to the fingers as they slip by each other shows that nothing beyond a membranous wall intervenes.

Letter on some of the Hospitals and Medical Men of Paris. By BENJAMIN LEE, M.D.

MESSRS. EDITORS—If you will step out with me this fine crispy winter's morning, (we had better make the most of it, for the eternal drizzle and fog of a Parisian winter does not afford many such,) with as many of your readers as choose to accompany us, I will conduct you to some of the principal hospitals of this great centre of medical science. As our walk is but a mental one, we need have no fear that this tall, grave-looking gendarme, who is approaching with his arms completely incapacitated from all action by means of the immense cloak which he wraps so closely around his frigid French shoulders, will interfere with us for forming a dangerously large crowd in the thoroughfare in these combustible times; or that we shall be treated, as was a fellow-countryman and student not long since, to a lodging over-night in a guard-house for over loud-talking in the public streets.

I purpose to introduce you (as I should have no right to do were we there in reality, and in this please see one beauty of this method of sight-seeing) to a few of the more noticeable among the Professors who visit these hospitals—men whose names are known and respected wherever medical science has been studied—representative men in their several specialties, whose opinions in matters which they have made the objects of their research, have, or have in their time, had the weight almost of laws. One always reads with so much interest the works and thoughts of men, if he can, at the same time, roll up before his mind's eye the men themselves; not only see their spirits in the words they have penned, but their own proper, mortal, and living persons—if he can put their words into their mouth and see their features lighting up and glowing with animation as they touch upon some topic with which their zeal for truth, their love of disputation, or their ambition for success and fame has closely connected them, and of which it has made them the champions and supporters. And although I cannot, of course, hope in a few words, or indeed in many words, to impress the personal appearances of these our illustrious brethren so firmly upon your minds as that you shall ever after be able to recall them, still I may, perhaps, be able for the time being, at least, to furnish to these names with which we are all so familiar, a certain degree of bodily presence and reality, which may bring them temporarily among us, and, if it happen to strike any one's fancy, may remain with him. I feel certain that those at least who have once really enjoyed the pleasure of seeing these men, face to face, and listening to their teachings, will not think a moment lost which may be spent in a hasty

reminiscence of them. This business of portrait-painting, as I know full well, unless the artist wield a skillful brush and handle it carefully, is not unapt to degenerate into caricature, however honest may be his intentions.

The fact that, among those who examine my gallery, there will be many whose personal acquaintance with the original will make them competent critics, will cause me to put on my colors with great care, and to avoid all exaggeration and distortion as sincerely as in me lieth. But while we are on the way, I may perhaps employ the time profitably with a few words on the general arrangements of the Paris hospitals, noting such features as would strike one familiar with American institutions for similar purposes as peculiar.

And first, if there is any one among you who expects to see in the Parisian hospitals grand, imposing, or highly decorated edifices, and will be disappointed if he do not see something at least equal, architecturally, to that poor man's palace, the Blockley Almshouse, Philadelphia, or the various charity buildings of the East River islands, let him turn back at once, or immediately lower the standard of his expectations. It is the exception and not the rule that the Paris hospital should possess not the slightest claim to architectural beauty, and the majority of them would rather startle the stranger by their obtrusive ugliness and want of grace, having more the appearance of long rows of factory buildings than anything else that is erected among us.

Among the older buildings, that of the Invalides is probably the most impressive, and that attracts attention principally by its quaint dormer windows, each of which is a suit of armor, and which it owes to the fact of its being a military institution. The modest little Ionic portico of Hôtel Dieu might be noticed, were it not so completely dwarfed by the gigantic proportions of Notre Dame, close to which it stands, just where good old St. Landry first put it twelve long centuries ago. The ground plan of a French, and indeed of a European hospital, is generally a quadrangle surrounding a hollow square, crossed, if it be sufficiently spacious, by long narrow ranges of building extending from one side to the other. The enclosed space has generally trees planted in it, and forms a convenient exercise ground for the convalescing patients. But it must be very extensive indeed to escape the charge of closeness and dampness. By means of this arrangement, the wards became extremely long in proportion to their width; and as they occupy the entire breadth of the building, are supplied with light and air on both sides. This advantage, however, they

contrive to deprive themselves of to a considerable extent by the extreme smallness of their windows, which are generally very high up from the floor. Notwithstanding this, they are usually the only means of ventilation which they possess, no attempt whatever being made to ventilate by shafts. Indeed, there are few hospitals in Paris which were not built long before the necessity for a careful attention to this very important point was recognized. Nor is it yet appreciated here, as it is in our own country. Although we would have supposed that the ill success of their surgery, especially at Hotel Dieu, would have led them to suspect it as one of its causes long ago. The wards are warmed, however, by large cast-iron stoves, and as the climate is such that they are rarely required to be made very hot, the heat thus generated probably makes a more healthful atmosphere than does that of the hot-air furnace to which the rigors of our winters compel us to resort. So much for the construction of the edifice. The nursing in these hospitals is generally done by Sisters of Charity, who, although often women of no more education or natural refinement than some of the Irish nurses in our own Charity Hospitals, nevertheless do acquire, from their long training, a thorough acquaintance with all the detail of their business, which is most painfully lacking in many of our institutions. The number of visiting physicians attached to the large hospitals is generally from four to six; of surgeons, half that number. Each physician or surgeon is followed by his staff of assistants, all in aprons and scull caps, divided into internes and externes, or residents and non-residents; the former having, of course, as with us, the more immediate charge of the patients, while the latter are occupied in making reports of the cases, &c., which they are compelled to do with great regularity and fullness. And this they are enabled to do from the fact that there are so many upon each staff. Velpeau's staff at La Charite consists of at least a dozen. The first interne generally has the supervision of the rest, unless, as is generally the case with the surgeons, there be a chef de clinique, who is a man of more years and experience than the other members. The visiting physician usually allows his assistants very little margin in the treatment of the patients, it being his duty to prescribe not only the medical regime, but also every particle of diet that is to be allowed. One result of this latter regulation is, that to a stranger the principal occupation of the grave professor appears to be, to pass from bed to bed, ordering in majestic tones "broth and tea."

On each staff there is also an assistant apothecary, whose business it is both to take down and to compound the prescriptions of the prin-

cial, and who is thus fitted in the most thorough and practical manner for the duties of his profession. The rigor of the laws requiring the education of druggists in France, might be imitated with very great benefit in the United States. Here a druggist can no more dispense medicines than a physician can practice without a diploma. With us, alas! they may do both. Our laws too, with regard to the vending of poisons, if there be any indeed, are lamentably lax, and suffer very much by comparison with the careful restrictions which are placed upon this dangerous and responsible business by European legislators. The visits of the Professors to the hospitals for the purpose of prescribing and lecturing at the same time, take place at from 7 to 10 o'clock in the morning, the majority of them commencing their rounds at 8. These lectures, whether at the bedside or in the theatre of the hospital, are entirely free to students and practitioners of whatever nationality, and the same holds true with regard to the lectures at the *Ecole de Médecine*, probably the first course taken as a whole in the world; the only requirement being, that the student shall register his name and nativity in the books of the institution, upon doing which he receives a ticket of admission.

There are two features of the Paris hospital system which deserve especial attention, from the facilities which they offer to students. The first is their division into specialties, the devoting of separate institutions to the treatment of special diseases or classes of diseases. The class of sneerers, who, either from interested motives or natural obtuseness, decried the study of specialties as less likely to result in the discovery of the real phenomena of disease, and to evolve true principles of treatment, than that of the entire schedule of diseased action, has pretty much died out; and there are probably but few practitioners among us at present who would not cheerfully acquiesce in the propriety of introducing such divisions to a much greater extent into our own hospital system.

The plan is urged by considerations of public economy; for then appliances for the treatment of any particular class of diseases would be requisite only for the particular institution where they were admitted, while now each separate one must be supplied with them, although imperfectly and perhaps insufficiently, by considerations of humanity; for it cannot but be that, other things being equal, disease must be more intimately studied, and hence more successfully treated, by those who devote themselves particularly to any one phase of it, and in an institution where opportunities are offered for the comparison of a large number of cases under different treatments at the same

time; and, lastly, by considerations of scientific advancement and the promotion of sound medical education. Whatever little difference of opinion there may still be as to the practical results for the patient of the system of special hospitals, no one can for a moment question the fact that the student is very much more greatly profited by the observation of a large number of cases of the same class, or of the same disease, at one time, than by a hurried glance at as many different diseases as there may be patients in a ward. The memory is thus better enabled to retain its impressions of the features of disease, and the mind to classify and discriminate. I know of no class of diseases in which this is truer than the very interesting one of skin diseases, for which the city of New York is yet entirely without special hospital accommodation. The appearances of the diseased tissue are so utterly different in different stages of the same affection, that it is imperatively necessary it should be studied throughout its entire course, and if possible simultaneously in its different periods, in order to the collation of a knowledge competent to a correct diagnosis. The second peculiar feature which I would mention is one so generally known in America, that it is a little singular that it has never been adopted. I refer to the practice of giving clinical lectures to small private classes, on the part of the house physicians (internes) of the hospitals. The student in Paris very soon finds that there are no courses so profitable as these; and the reasons are obvious. The Professor in his public round must visit every patient, while the assistant with his private class can devote all his time to a few of the more interesting cases. The responsibilities which rest upon him make him a careful observer of all their peculiar features, while his intimate association with the visiting physician puts him fully in possession of both his knowledge and his opinions in regard to them. Add to this the fact that each member of one of these small classes has an opportunity for a thorough examination of each patient himself, and for testing his powers of diagnosis, and the reasons for the peculiarity of these courses will be sufficiently apparent. To the lecturer himself there are not less striking advantages.

First, the practical one of replenishing his empty pockets, (for it is to be taken for granted the pockets of a medical student are generally in this unpleasantly jejune state,) which, if he be a man of capacity and possess a faculty for conveying instruction, it will do to a very considerable extent—some of these courses commanding a pretty heavy fee. (The mean rate for a course of 12 lectures is probably 20 to 25 francs, (\$4.00–\$5.00.)

At the same time the careful examination and analysis of his cases, necessary for a clear and satisfactory explanation of them to others—especially when those others are as searching, as wide awake, and as critical as medical students fresh from theoretical lectures and with their text books in their hands are apt to be—is of a value to him in forcing him to methodize his knowledge, and teaching him to make his acquirements available, which it would be difficult to overrate.

To proceed now from this general description to a more particular notice of some of the principal of these institutions. We shall begin with Hôtel Dieu, of which we have already had occasion to speak. Unlike the majority of them, and therefore unlike the general description which I have given of them, this building does not surround a square. It consists of two long blocks, built upon opposite sides of the Seine, and connected by a private bridge and a subterranean passage under the street. In order to make all its room available, its wards are consequently much wider than those of hospitals built upon the other plan; while to give the effect of narrowness, which seems to be so greatly prized here, they are often divided, like the old wards of Bellevue Hospital, New York, by a massive partition pierced with large arches, through which they communicate.

This is the largest of the general hospitals, having beds for about 1,500 patients.

Among the Professors who lecture at this hospital may be noted Trousseau, whose fame in the most difficult, and in our country the least generally understood branch of our science, diagnosis, is probably greater than that of any man living. Let an American physician once thoroughly appreciate the character of a disease, and he will probably treat it more practically and with better results than the French practitioner; but, unfortunately, he is too often striking in the dark, and is uncertain whether his blow will fall upon the disease or upon the patient.

It may be said of Trousseau, as it cannot of all the Parisian professors, that he is a perfect gentleman; for though they nearly all have, like their boots, a certain "French polish, warranted to stand all climates," still in the real element of the gentleman, which springs from the heart, and consists in an innate appreciation of the relations and obligations of man to man, they are often deficient.

In person, he is tall, erect, well made, and of a dignified though easy bearing. His face is handsome and benevolent, and, like that of all his colleagues, close-shaved. To an extremely sweet and well-mod-

ulated voice he adds a very pure pronunciation and a great command of language, which, with his fair powers of imagination, make him the first orator in the whole schedule of Professors. It is sometimes complained of him, that his love of displaying these powers leads him off from the practical bearings of his subject. But by the bedside, where he is of necessity confined by the presence of the case, I know no more useful or charming lecturer.

In the same institution we find Jobert, the surgeon, a man as utterly unlike the last as it is possible for two men moving in the same sphere to be. Trousseau's careful attention to dress becomes with him dandyism—his dignity, pomposity—his eloquence, bombast—and his firmness, bullying. He is nevertheless a man of acuteness, handles the knife boldly and skillfully, and indeed is almost as well known as an operator, both at home and abroad, as any of the Parisian surgeons.

Trousseau, it will be remembered, has been long studying the subject of topical medication of the air-passages, and there has been a question as to priority of introduction of this very important branch of therapeutics between himself and Professor Green, of New York.

He has since had a friendly and highly interesting correspondence with Prof. G. on the subject, and only quite recently announced to the French Academy the name of the latter gentleman as the rightful recipient of honors, which other members of that body wished to claim themselves.

La Pitie, numbering 624 beds, is considered the finest of the old Parisian hospitals in all its appointments, the spaciousness of its wards, and the extent of its grounds; and its position immediately opposite the Jardin des Plantes is certainly one of the most salubrious in the city. Like Hôtel Dieu, it is a general hospital, and the American is surprised to find small-pox, measles, or scarlet fever admitted without scruple into wards crowded with patients suffering from other diseases. As a matter of fact, these cases rarely become centres of contagion, although instances have fallen under my notice where these diseases have been propagated to a limited extent.

In the medical wards of this institution we find Becquerel, one of the most careful students in France of the chemical relations of the constituents of the human body. An artist who wished to paint an alchemist of the olden time could not ask a better study for his subject. Tall, thin, and slightly bent, his old coat hanging in folds almost to his heels, and his silver-gray locks falling carelessly out from under the little faded red cap which he sets on the back of his head, a nose

long, sharp and thin, an eye deep set, and full of intelligence and kindness, and, when he becomes excited, of enthusiasm; there wants nothing to complete the picture, when one sees him among his retorts and test-tubes, but a beard; but unfortunately, like the rest of his colleagues, as I have said, he is close shaven. He has the misfortune to stammer quite badly, and when under a high pressure of thought his face becomes intensely animated in his eagerness to express himself more rapidly than his infirmity will permit. This peculiarity, strangely enough, makes him more intelligible to a foreigner than any other of the professors, simply because it necessitates his speaking slowly.

In the surgical department of this same hospital *Maisonneuve* handles probably the most skillful, and certainly the most showy knife in Paris. And here again exists almost the contrast that we noticed between the two professors at *Hôtel Dieu*. One needs not to look twice at *Maisonneuve* to be assured of the original identity of the races now inhabiting sunny France and green Erin. Stout, rough, and intolerant, he blusters through his wards like a bull in a china shop, and woe to the nurse, interne, or patient whom he gets between his horns. With none of the dandy, he has probably more of the real gentleman than *Jobert*, although it must be confessed that he conceals it with great success. It is a little remarkable that, with his well-deserved reputation for operative skill, he should have been during the past winter strenuously urging the substitution of caustics for the knife in malignant disease. He claims to have met with wonderful success in their employment. He is certainly honest, and may be right, but his Irish enthusiasm has too often gotten the better of his judgment to allow his colleagues to adopt his ideas without very careful experimental tests.

In one of the interminably long wards of *La Charité* there will usually be found a goodly number of students collected at a little before nine of a winter's morning; some talking, some examining cases with an interne, some reading the *Gazette des Hopitaux*, (if Americans, they will nearly always be engaged in the last mentioned manner.) Suddenly a brisk footstep is heard on the slippery tiles, and the whole ward starts into motion. Nurses hurry for basin, towels, and stool; internes gather up their instruments and their dignity; and the students collect in a crowd around the bed toward which the brisk footsteps are directed, while there is a general pulling out of note books and little blue and red chalk pencils. The cause of all this sudden excitement is a robust-looking man, with a profusion of jet black hair,

heavy black whiskers, a careful toilet, and a great vivacity of manner, even for a Frenchman. Sitting down by the bedside upon his high stool, he pulls out a small ivory plessimeter, and placing it upon whatever part of the patient be the seat of the disease—it matters little whether it be head, trunk, or extremities—he begins to percuss with immense rapidity, at the same time making blue and red lines all over the surface with his pencils, until it is mapped out into a precise delineation of the supposed shape of the contained organs, and the sick man has very much the appearance of an animated railway map. All this while he is glancing his black eyes from one to another of the students, lecturing and questioning with the greatest volubility. This, you will say, is some young professor, who, anxious to work his way up, calls to his aid all his energies and a little clap-trap. Not so, I assure you. This is none other than Piorry, the venerable champion of the stethoscope and percussor, who has already some time since numbered his three score and ten, and is hastening on towards the troublous fourscore.

The sciences of auscultation and percussion it has been the business of his life to defend and to perfect, if not to introduce; and although he may now, in his old age, be making too much of a hobby of the subject which has carried him to so high a position, modern medicine owes him a great debt for his untiring zeal and minute observation in this department of our science.

But you ask “How does this venerable apostle of physical diagnosis contrive to appear so young?” Oh! that is his secret. It is enough to say that he is a Frenchman.

In the surgical wards, just the other side of the hall from this, followed by a crowd of students, and the largest staff in Paris, now and then dropping a word or two full of instruction, but generally with his lips firmly compressed, and drawing attention to cases of interest by a point of his finger, or, in the amphitheatre, dealing out, in the driest and barest manner, the results of a long life of experience and reflection, is Velpeau, the father of modern surgery. Erect, his small, well-shaped head firmly set upon his shoulders, his hair yet scarcely gray, his voice firm, his hand guiding the knife as unerringly as in his days of middle manhood, his piercing eye looking out searchingly, as if for new facts, from under the heavy thatch of his overhanging brow, he stands an iron man; and when you know that until after he had attained to man’s estate, and yet before the present generation of physicians were thought of, he wielded the blacksmith’s hammer, an

obscure mechanic, you understand to what he owes his almost preternatural vigor.

The Hôpital Neckar, with accommodations for 403 patients, is advantageously situated, in a more open district than the last, and having been more recently, is somewhat more scientifically, constructed. Here the student sees with pleasure the benevolent countenance of Civiale, the inventor of the Lithotritor, whose Saturday morning clinics are extremely instructive on diseases of the urinary passages, and, as they deserve, well attended.

Immediately adjoining this last, its ample grounds well provided with every means for gymnastic exercise, is the Hospital for Sick Children, with its sad population of upwards of 600 little victims of disease. Those who have frequented its little theatre, under the teachings of Guersant, will remember his partiality for a Hebrew rite, and his ingenious arguments in its support. St. Eugénie, also a children's hospital, much smaller than the last, is pleasantly situated on the banks of the Seine, quite at the other extremity of the city. The extent of its grounds does not compensate for the deficient ventilation of its wards, as the constant palor of its poor little inmates too well testifies.

Here Barthez de Marmorieres, whom Louis Napoleon, with his accustomed sagacity, chose as physician to his darling son and heir, when as yet he had no expectation of a second, modestly makes his rounds, and gives lectures of interest and profit.

Another physician, very eminent as a practitioner among children, and as an author on the subject of their diseases, is Barth of the Hôpital Beaujon, which, however, principally on account of its distance from the medical centre, the Ecole de Medicine, is little frequented by students. It numbers 440 beds.

La Riboisière, the newest hospital in Paris, is the only one (if we except, perhaps, the last mentioned) which, in possessing the modern appliances for comfort and wholesomeness, compares favorably with those more recently erected in the United States, and the spaciousness and judicious arrangement of its wards make it contrast most pleasantly with the majority of its sister institutions. It furnishes accommodations for 612 patients. Here every Monday Chassaignac operates with his Ecraseur or Crusher. The design and practical working of this instrument are too well known in the United States to need to be described here. As a lecturer he is a rival of Trouseau, in ease of expression, beauty of language, and distinctness of pronunciation, although not his equal in imaginative power.

The Hôpital St. Louis is the largest institution in the world for the treatment of diseases of the skin, containing 853 beds. We have had a good walk to get to it, but its great extent and its extreme richness in specimens of disease fully repay the trouble.

Here we find, among other celebrities, Cazenave, whose elegantly illustrated work is already a classic. Here the talented and skillful Malgaigne, with the sneer of Voltaire on his face and bitter words on his lip, hisses out together sound surgery and biting sarcasm.

The "Hôpital du Midi," or "Southern Hospital," so called from its situation on the southernmost limit of the city, and the "Lourcine," each with upwards of three hundred beds, are devoted to the treatment of syphilis, the former in males, the latter in females. For Paris, notwithstanding its much-vaunted sanitary police regulations, and its legislation of crime, still affords a large field for the study of this loathsome disease.

At the first mentioned of these two hospitals, Ricord, another thorough Irishman, both in appearance and in wit, though a perfect Frenchman in cold-bloodedness and want of feeling, has won himself a world-wide reputation, and established the treatment of this disease on more scientific and rational principles than had ever before been obtained.

At present his reputation is in danger of being overshadowed by that of his former pupil, Clerc, who has already gotten the better of his teacher in one or two controversies, and whose clinics now draw a greater crowd of students than do those of the great syphilographer himself.

The little hospital called the "Faculty's Clinic" was established immediately opposite the "School of Medicine" not many years since, in order to give an opportunity for the delivery of clinical lectures in immediate connection with those of the School. Its greatest ornament at present is Nelaton, whose acuteness and profound judgment entitle him to the place among surgeons which Trousseau occupies among physicians. On this account, as well as because of its vicinity to the school, his clinic is more crowded than that of any other operator in the city, and indeed his lectures never fail to possess great interest and value. There is nothing striking in the appearance of the man, beyond a calm composure of countenance and a careful attention to dress. His short gray hair lies smoothly over his broad forehead. He wears habitually a dress coat and white vest, the former buttoned tight. His manner is extremely modest. He speaks without gesture, often with some hesitancy, and has a way of clearing his throat by a

short, sudden expiration, which interferes very frequently with the flow of his periods; his style is almost entirely unadorned; but all this to the contrary notwithstanding, so careful is his analysis, so acute his observation, so great his experience, and so deep and so apparent his interest in his subject, that his instructions are listened to with an extreme degree of attention.

In our hurried run through the hospitals we have, of course, met but a few even of those who have attained eminence in their profession, in this centre of the sciences. It may, however, serve as an illustration of the men and manners of Paris hospitals; and if it has conveyed to any one of your readers a more distinct or true idea of them than he had before, its object will have been accomplished.

It will be seen that this city at present offers very great advantages to the student who is willing to avail himself of them, but none that cannot and will not in process of time be afforded by our own, for I look forward with perfect certainty to the time when America shall hold the foremost rank among nations in the cultivation of scientific, as she does now of political and moral truth.

33 Rue de Fleurus.

Ozone.

The November number of the *Journal de Pharmacie et de Chimie* states that Mons. de Babo, Professor of Physics in the University of Freiburg, Brisgaw, exhibited before the Scientific Congress at Carlsruhe an apparatus for the preparation of ozone. This apparatus, in which the ozone is obtained by the combustion of phosphorus, allows of the removal of the phosphorous acid, with which it is ordinarily contaminated. This result is attained by washing the gas with chromic acid. This acid does not only oxidize the phosphoric acid, but it also, as Bunsen and Baumert have announced, enriches the ozone, since, after the washing, it was surprising to find more ozone than before, evidently the result of the fact that the oxidation of phosphorous acid is itself a cause of ozonization.

De Babo has succeeded in so thoroughly drying ozone, as to obtain it in an anhydrous condition, from which it follows that this particular form of ozone cannot be confounded with hydrogenous ozone HO_3 discovered by Baumert.

Bunsen and Magnus, who spoke successively on the subject, are of opinion that it is necessary to admit the existence of two kinds of

ozone, one to be considered allotropic oxygen, and the other as a hydrogenous compound. This obscure question of the nature of ozone has met some elucidation in one of the subsequent sessions of congress, as the following will show.

Schoenbein, the Chemist of Basle, who has been occupied, as he himself says, for more than twenty years in the study of oxygen, has shown us how a man can obtain a fair name in science by merely attaching himself to the study of one particular body.

Schoenbein announced to the congress the existence of three kinds of oxygen: one, ordinary oxygen, that which we respire from the atmosphere; the two other kinds are two forms of ozone which bear the same relation to each other that the two forms of electricity possess. In fact, we form ordinary oxygen when we bring these two kinds of ozone together; and, on the other hand, ordinary oxygen is destroyed when, by any given chemical action, one of these two allotropic modifications that compose it is removed.

The tendency, on the part of the two modifications, to be produced from ordinary oxygen, explains certain effects heretofore called *catalytic*, which have been unaccountable. Thus peroxide of barium and oxygenated water, being acidified by nitric acid, are reciprocally decomposed, giving rise to the formation of water, protoxide of barium, and ordinary oxygen; under similar circumstances permanganate of potassa is reduced to manganic oxide, and chromic acid becomes oxide of chrome; that is to say, these compounds are deoxidized in the presence of an abundant source of oxygen, and precisely from the contact of that particular form of oxygen, or ozone, whose oxidizing properties are effective in the direct oxidation of the least oxidizable bodies, such as nitrogen, which is, as we know, directly transformed, under the influence of ozone, into nitric acid.

These effects, so contradictory, are thus explained: a combination strongly oxygenous can be decomposed in the presence of a compound, rich in oxygen, whenever one of the compounds contains oxygen in the condition that may be called *positive*, and the other in that which may be called *negative*. The result of this decomposition is ordinary or *neutral* oxygen. It is this, moreover, which is obtained, when we experiment with ozone obtained with phosphorus by the action of oxygenized water—the product being pure water and ordinary oxygen. Therefore, in order that ozone or nascent oxygen, obtained by phosphorus, should act as an energetic oxidizer, it is necessary that it should not be in presence of nascent oxygen produced from oxygenized water. Thus an acid loses its acid properties in presence of a

base and reciprocally, and ozone affected with a sign + loses its oxidizing properties in the presence of ozone of the sign —. L. H. S.

Preparation and Use of Tannate of Lead, in the moist condition, as a Preventive of Slough of the Sacrum. By LE CLERK.

Le Clerk, chief physician to the civil almshouse of Laon, has communicated a plan which, he says, succeeds perfectly with such affections. It consists in the application of tannate of lead, in the moist condition, whenever there is redness or sensitiveness in the sacral region. However, if a slough be found, as soon as it begins to detach itself it should be dressed with tannate of lead with turpentine.

The following is the formula for the preparation of the hydrated tannate of lead:

Pulverized oak bark..... 32 grammes.

Pure spring water.....250 “

The mixture is to be boiled until the quantity is reduced to 125 grammes, and then strained; when extractum saturni is to be added until there ceases to be any precipitation. The precipitate is then received on a filter. A thick layer is spread with the finger upon the parts threatened with gangrene, and they are then covered with fine linen. His method is preferable to those heretofore employed, for if it is adopted in time the cases are exceptional where a slough will take place.—*Revue de Therap. Med. Chir.* L. H. S.

Sketch of the Life of Mons. E. Soubeiran. From the French of H. BUIGNET.

Soubeiran was born at Paris on the fourth of the month Prairial, in the 5th year of the Republic. He exhibited a decided taste early in life for the study of science. Having suffered a reverse of fortune, his father established, in the year 1811, a Bleachery at Bezons, near Paris. He worked at this place for some time; shortly after, in 1813, he left for Montpellier, where he placed himself as a student of Pharmacy with M. Pouzin. Having passed three years in this shop, he returned to Paris, to terminate his course with Montillard, Rue Saint-Honoré.

At Montpellier, as well as at Paris, he employed his leisure moments, with much ardor, in theoretic studies. Thus his entrance on

the arena of science was marked by two brilliant successes; at the *concours* for the position of *interne* in the hospital he was admitted as second, during his first year, and at the *concours* of the School of Pharmacy he bore off all the first prizes in physical and natural sciences.

The place of chief pharmacist being vacant in the *Hôpital de la Pitié*, he competed for it and received the appointment. From this place he published his first contributions on soluble cream of tartar, and the rôle of boracic acid in its preparation; and, from this period, it may be said that he did not cease furnishing the Journal of Pharmacy with facts and observations.

In 1832, the administration of hospitals being about to name a successor to Henry, whom the terrible plague that then desolated Paris had just removed from science and his friends, directed its attention to Soubeiran, whose rare qualities recommended him especially to their choice. He was then appointed chief of the central pharmacy; but in this honor paid to his deserts he only saw an additional opportunity offered to his zeal and his ardor for science.

His success he made available to the cause of instruction, and in 1826 he began a special course on pharmacy. This he continued and perfected at the central pharmacy. The subject was presented in a new light, and after a methodical plan, in entire conformity with natural classification. This methodical arrangement he reproduced in the *Traité de Pharmacie*, a work classic in excellence, whose success has been attested by five successive editions.

In 1834, the School of Pharmacy having perceived the necessity of adding two new chairs to its department of instruction, Soubeiran was selected to occupy that of physics. For a period of more than twenty years, during which he held this chair, he gave to his instructions an attractiveness quite peculiar, on account of the care he employed in multiplying experiments, and presenting them so as to be most striking both to the eyes and the intellect. The cabinet of physics owes a large number of very ingenious apparatus to him, the great advantage of which consists in rendering demonstrations neat and striking.

But it was particularly in the Pharmaceutical Society that Soubeiran most profusely displayed the marvellous qualities that distinguished him as a Professor. Appointed general secretary of the Society, at the death of Robiquet, he soon identified himself with it, so that he became the soul of its operations, and directed all its discussions with an indefatigable zeal, and an authority that he drew from

his own extensive knowledge. Every one can still recollect his clear and terse manner of speaking, always to the point, stating the most difficult and delicate questions in clear and precise terms. Every one can recollect that infinite skill, with which he knew how to set forth subjects the most abstract, and to clothe them in a simple, easy dress, intelligible to all.

The day arrived, however, when he believed it necessary to resign his duties as general secretary. Appointed Professor of Pharmacology in the Faculty of Medicine, he feared that he would not be able to devote all the time, to his former duties, that he believed, conscientiously, they required. I perceive, moreover, says he in a letter written to the members of the Society—I perceive that age is coming on, and that my activity is diminishing. It seems as if the statement, which then appeared to be merely imaginative to those whom he addressed, had been a presentiment to him of the terrible malady which was soon to remove him.

Having become a simple member of the Society, he attended its sessions with the same zeal as before, and continued to bring there the tributes of his experience and his observations. But lately he communicated the result of his investigations on the sulphur waters of the Pyrenees, and his process for the preparation of iodhydric ether.

This master of pharmacy died on November 17, after a long and painful illness. His works are too numerous and too important to be noticed in this brief sketch. Others may speak more eloquently of the rare qualities of my excellent master, but no one can know, or appreciate, them better than I can.

L. H. S.

PROCEEDINGS OF SOCIETIES.

New York Pathological Society. Regular Meeting, October 27, 1858.

DR. E. R. PEASLEE, President.

[Reported for the MONTHLY, by E. LEE JONES, M.D., Secretary.]

At the commencement of the session, DR. MOSES occupied the attention of the Society by a reference to a singular case that occurred in his practice. He stated, that a short time ago he was called to a case of fever; there was nothing remarkable about it, and he regarded it as an ordinary case of mild typhoid. No complication presented itself except a little bronchial trouble, which subsided in the course of

two or three days. He saw the case on Saturday, and it was doing very well. On the following day he was unable to see him, but by all accounts he did very well. On Monday the friends told him, much to his surprise, that the boy was dead. It appears that the boy did perfectly well until within a few hours of his death, when he was seized with vomiting, of a black material, which very shortly after gave place to profuse hæmorrhage from the mouth and anus. This lasted two or three days. On making a partial post-mortem examination, and upon opening the cavity of the peritoneum, the surface of the intestines and stomach presented a very dark appearance. The whole mucous surface of the stomach was found covered with blood, as was also the case with the whole of the small intestine. There was no softening of the coats of the stomach so far as could be ascertained. Peyer's patches was found to be considerably enlarged. He could not discover a rupture of any of the vessels. It struck him as being a very unusual termination for an ordinary case of fever. He had seen but one other like it in practice, where the case terminated precisely as this had done, and the stomach and tract of the intestines were found to present the same appearances.

DR. HARRIS asked if there were observed any ecchymotic spots upon the surface of the body?

DR. MOSES stated that he had looked for these spots, particularly, but could not find any. The case was a very simple one, and when he first saw it he was rather disposed to consider it a simple case of bronchitis, with a little sympathetic fever. The friend of the patient said that he had had an attack of fever two or three months before, in connection with rheumatism, and thought that by some imprudence on his part he had brought on a relapse.

DR. HARRIS said that the occurrence of such hæmorrhages would seem to warrant the conclusion that there was some morbid change in the blood. This condition of the blood was uniformly, so far as he has observed, connected with ecchymosis.

DR. MOSES stated that no such change in the blood was suspected; the symptoms were of the mildest and simplest character, and if Peyer's patches were not enlarged, he could not have dignified it with the title of typhoid fever.

DR. CONANT stated that hæmatemesis was not an uncommon symptom of cirrhosis.

DR. MOSES stated that this was one of the first symptoms that presented themselves in such a case.

DR. CONANT referred to a case of cirrhosis where there was vomit-

ing of blood, and where it was supposed that the blood exuded from the coats of the vessels, but upon injection rupture of the gastric veins was found to exist. He thought that this might have been the source of the blood in Dr. Moses' cases.

DR. MOSES thought that this could not be so, inasmuch as the blood did not present the true venous characteristics; nor did it seem as if it escaped from an open vessel. He was of the opinion that the blood was exhaled from the mucous surface of the whole intestinal lining, just as was the black vomit in yellow fever.

DR. PEASLEE was of the opinion that the source of the hæmorrhage was in the stomach.

DR. HARRIS stated that in yellow fever the blood undergoes disintegration.

DR. PEASLEE said: It seems to me that the question of exudation of blood is one of the many points of pathology that required to be studied entirely *de novo*. I cannot conceive of blood in a healthy state getting out of any vessel without rupture of that vessel, any more than a cannon ball which is not to go out of the muzzle of a cannon getting out through the side without an opening being formed large enough for its exit. We may have the blood so broken down that the hematine is exuded, and, along with the liquor sanguinis, may present to the naked eye the appearance of blood; but no corpuscles, as such, can escape so long as the integrity of the vessel is maintained. Hæmorrhage always occurs in such cases, and exhalation is hæmorrhage. It may be very difficult to find a rupture in some cases, but nevertheless it does exist.

DR. CONANT thought that the blood escaped from the stomach the same as the serum did in cholera. In the first stage of this affection there are bilious discharges from the fluid that passes down from the stomach, then rice water discharges make their appearance, and there is no more fæcal matter in the stools. The upper part of the alimentary canal becomes first affected.

DR. MOSES maintained that both extremities of the canal were equally affected, inasmuch as he had seen discharges from the mouth and anus simultaneously, sometimes to the amount of two or three gallons.

He did not see any impropriety in mucous membranes pouring forth blood as well as serous tissues, which are far less vascular. He stated that hæmorrhagic pericarditis frequently occurs, as does also hæmorrhagic pleurisy. He believed that hæmorrhage in these cases occurred without any rupture of a blood-vessel. He stated that blood exuded

very frequently from the mucous membrane of the nose, and sometimes from the ear, and very rarely from the eye.

DR. PEASLEE thought that these cases were analogous to one another; that they were in reality true hæmorrhages where a blood vessel had ruptured. He stated that it was yet to be proved that hæmorrhage could take place without any rupture. In cholera, he stated, there was no hæmorrhage, nothing but a mere physical exudation.

DR. SCHILLING agreed with Dr. Peaslee in stating that no blood, as such, could escape from the vessels without a rupture. He referred to some observations made by Virchow, where the blood is blocked up in small venous twigs, by an exudation from the inner coats of some larger vessels. These twigs as a consequence burst, and blood escapes. He thought that possibly this might be the cause in the instance referred to by Dr. Moses. He stated that the black vomit in yellow fever was not pure blood, for the corpuscles were broken down.

DR. MOSES stated that there was no rupture of blood-vessels in the catamenia of females.

DR. PEASLEE thought that this was not proved.

DR. CONANT stated that experiments had been performed with a view to ascertain this fact, and that it has been shown that a rupture did take place.

DR. PEASLEE said that every one knew that blood was discharged by the female in her catamenia, and if in any case it could be proved that rupture did not take place it would put the question to rest at once; but he did not question that it was true hæmorrhage, and that a vessel was ruptured.

DR. MOSES, in this connection, referred to a case of vicarious menstruation through the lungs, where he thought no rupture of a vessel occurred.

DR. AGNEW next presented a specimen of *ulceration of the small intestine*, accompanied with the following history:

William H. Perkins, aged 24, native of Rhode Island, seaman; admitted to N. Y. Hospital Oct. 22d, 1858; Dr. H. D. Bulkley in attendance. Patient began to complain of malaise and headache ten days ago. On the evening of the 18th inst. he was at the theatre, and says next morning he felt a change come over him—had some epistaxis, to which he has been subject from boyhood, and at night was delirious. Has had no chill; been cupped upon the neck, and has had some mild cathartic. Condition has not changed since the 10th.

Present condition: countenance that of fever; skin hot; pulse 120 and feeble; tongue moist, and thickly coated with a white fur; bowels

moved by medicine; rational, and able to give the above account of himself.

Treatment: ordered infus. serpentaria. \mathfrak{z} j. every fourth hour.

23d. Perspiring freely; skin cool; pulse 120, and more feeble; delirious; slow in replying to questions, and answers confused; mentions having been to Aspinwall. Upon the supposition that his trouble might be miasmatic, he was ordered sulph. quinine grs. ii. every hour. In the evening became semi-comatose, viz., had muttering delirium, continually looking about him, but did not notice any one about him, or respond to his name. Pulse 120, large and soft; pupils dilated; skin still hot; quinine suspended. Ordered opium gr. $\frac{1}{2}$, camphor gr. ii. every three hours, brandy at the rate of \mathfrak{z} xii. per diem.

At 2 P. M. had great jaclitation, subsultus, carphologia; pulse and skin same; pupils natural; eyes congested. The attending physician thought it a case of meningitis, and ordered cups to the temples, calomel gr. i. every hour. Three ounces of blood were taken immediately, when the pulse were to 130, and became much more feeble. Ordered brandy continued, and mercurial inunction, together with the calomel.

25th. Pulse not so strong as last evening; brandy increased to \mathfrak{z} xviii. a day; rallied sufficiently in the night to protrude his tongue when asked, which was dry at the tip, the remainder moist and heavily coated white; less jactitation, but more carphologia; thumb and fore-finger held together as if holding something; surface cool; perspiring; passing a large quantity of urine under him; abdomen rather retracted than otherwise; pulse 120, and indistinct; bowels moved twice after taking 16 grs. of calomel, which was suspended for four hours and then resumed. Died comatose at 2 P. M.

His brother says he spent his summer upon the Delaware, and the last seven weeks upon the Hudson River.

Autopsy.— $1\frac{1}{2}$ hours after death.

Brain.—Membranes moderately congested, subarachnoid space distended, with clear serum sufficient to elevate that membrane from the convolutions. Near the longitudinal fissure were two opaque white spots, one on each hemisphere, having some resemblance to old inflammatory deposit. The ventricles and substance of the brain presented no deviation from health.

Thorax.—Portions of the lower lobes of each lung were collapsed, leathery to the feel, and without crepitation. Heart contracted and empty.

Abdomen.—Stomach moderately congested. Peyer's plates and the solitary glands very much thickened, red, with a distinct clear margin,

and most of them ulcerated. The ulcers were deep, ragged, edges everted, and the surface covered with a brownish yellow, or clay colored slough. The mesenteric glands were enlarged and red, spleen enlarged to about 12 ounces, kidneys and liver congested.

DR. MOSES asked in what proportion of cases where diarrhœa did not exist were there formidable ulcerations found to exist. He had frequently met with diarrhœa that had existed for many days before death, where there was every reason to believe that such a state of things did exist, when at the post-mortem no lesions of the intestines could be discovered. On the other hand, in many of these cases there were no symptoms that would lead to a suspicion of their existence, where even constipation was a remarkable feature.

DR. HARRIS stated that the appearances of the ulcers were very peculiar, and seemed to him to be very different from the typhoid ulcerations usually met with. It struck him that something might be learned in that connection respecting the cerebral symptoms. He thought that the indurated margins of the ulcers, as well as the appearance presented by the small glands, leaned to the supposition that the parts affected were the seat of tuberculous disease.

DR. CONANT referred to a specimen that he had presented to the Society four years ago. The patient had been first affected with cholera, which had subsided almost entirely; then a typhoid condition supervened, from which she died three or four days after. He made a post-mortem, and found larger ulcerations of the intestines than in this case, especially around the ileo-cæcal valve. The ulcerated spots extended three or four feet up the ileum. A large abscess was also found in the mesentery, containing more than a quart of pus. The mesenteric glands were enlarged and had every appearance of being tuberculous. There was no difficulty in the lungs.

DR. HARRIS stated that Dr. Graves related a case in which very severe cerebral symptoms manifested themselves, where a post-mortem revealed a most remarkable lesion in the small intestine; ulcers extending through several feet of the ileum, and which corresponded as far as the description given with the specimen upon the table. Dr. Graves thought that the cerebral symptoms were due to reflex action. He (Dr. G.) makes no mention of having found any typhoid matter in the intestines, and evidently did not believe it to be typhoid fever.

DR. GARDNER stated that he had met with but one case in a large number of post-mortems that was in any way similar to the one presented. The cause in that case was referred to syphilis.

DR. SCHILLING stated that he had made a great many post-mortems,

both in this country and others, and had noticed the fact, that the ulcers of the intestines, all other things being equal, were smaller and less abundant when brandy and other stimulants were not employed in the treatment. He had noticed that these ulcers were very apt to be covered with crusts of fæcal matter.

DR. WOOD stated that the large ulcers were the very types of the diphtherite of Brettonean, while the smaller ones looked as if they were tuberculous. He was of the impression that Dr. Sabine presented a specimen to the Society where both these varieties of ulcerations were well marked in the same individual. The patient had contracted typhoid fever while suffering from phthisis. There were found tuberculous ulcerations in the mesenteric glands. In the case before us, said he, we have also trouble of the mesenteric glands; they are enlarged and congested, and the microscope would no doubt show them to be affected with tuberculous disease. He stated that convulsions were by no means rare in tuberculous affections of the intestine, from the fact that the base of the brain is almost sure to be similarly affected.

DR. MOSES stated that, when he was a resident in the New York Hospital, cases similar to the one present were of frequent occurrence. He only looked upon the case as remarkable in the rapid formation of the ulcerations with absence of all abdominal symptoms. He stated, that whenever there is ulceration of Peyer's plates the mesenteric glands connected with them are very apt to be swollen and inflamed.

DR. PEASLEE stated that the appearances after death from scarlatina and phthisis, where the intestine is affected, are so like those we see in fever, that it is very difficult if not impossible to distinguish them. He had seen a post-mortem after phthisis, of which he was very strongly reminded on viewing this specimen, and yet the Peyer's patches were affected at the same time.

DR. HARRIS thought that the large patches were due to typhoid ulcerations.

DR. METCALFE stated that the probability would be in favor of the ulcerations being tubercular, at the same time it would be nothing more than a probability. Within the last three weeks he had a similar appearance present itself in a case of well-marked typhoid fever, where there was no tubercular affection. Generally speaking, said he, the tubercular ulcerations have a tendency to encircle the gut rather than take the direction of the long diameter. These are simply general statements, for I have seen ulcerations of Peyer's glands extend in a longitudinal direction, and also typhoid ulcerations present the same appearances as are here shown.

With regard to the absence of abdominal symptoms, I have met with cases of the same kind where the symptoms were so marked in relation to the head that there was a great deal of doubt whether or no they were typhoid. There were no abdominal symptoms whatever, but after death almost the same lesions were found as in a well-marked case of typhoid fever. He thought that the disease of the brain in these cases marked the disease elsewhere.

DR. WOOD next presented a beautiful specimen of *spina ventosa*. These tumors, said he, grow either from the cavity of the bone itself, swelling out like an aneurism, as it is a new growth from the bone, as in this instance. Now, the majority of the eggshell tumors come from the cavity of the medullary canal; but in this case we have a tumor the size of a hen's egg, coming from the periosteum, expanding out and presenting, as you see, a medullary cavity and cancellated structure of its own. It probably commenced in a periostitis, and the marrow of the bone was so deposited that this exostosis was the result.

There does not seem to be anything pathological about it; the only inconvenience that the patient suffered was from its position, interfering to a considerable extent with the easy movements of the limb.

DR. WOOD presented another specimen, taken from the body of a man who had died of a severe injury. He brought a portion of his mutilated body, one of the clavicles of which was the seat of a simple comminuted fracture. This, he stated, was of very rare occurrence, while on the other hand compound fractures of this bone are not uncommon.

He next presented a third specimen, a portion of the chest of a female who entered Bellevue Hospital three years ago with a stab of the left side. The dagger with which the deed was done transfixed the sixth rib. She was there but a short time, and was discharged cured. She came in a short time ago, and died, I think, with Bright's disease. On examining the thorax, a portion of the dagger was found in the rib, the pleura being pushed before it. Just at that point there is a mass of what appears to be adipose tissue, about an inch and a half in length and three-fourths of an inch in breadth, hanging with a free extremity into the cavity of the chest. This material was found to be covered with the pleural membrane. The dagger's point did not seem to penetrate the pleura, but simply pushed it before it.

DR. DALTON thought that this fatty mass originally existed in the cavity of the pleura, and the point of the dagger had caused inflammation and adhesion, and this glued the parts to the parietes.

Aneurism of the Aorta.—DR. METCALFE presented a specimen of aneurism of the aorta, with the following history: Mary Walsh, 23, Ireland, domestic. Father died of typhoid fever. Mother has phthisis, but is still alive. Patient is married and has had two children, one still living; the other died of croup. Has never miscarried; has always been regular until the commencement of this disease. Last August she first noticed a pain between her shoulders, extending to the arms and fingers. Six months after, while sleeping at night she was suddenly awakened by a pain commencing at the tip of the ensiform cartilage, and passing through to the back, which pain has never left her. Her food soon commenced to trouble her, and she suffered much from severe eructations and vomiting, especially after her meals. About five months ago she first noticed a small tumor in the epigastrium. Continuing to suffer more intensely, she entered Bellevue Hospital. She remained here about two months, suffering continually from the above symptoms. There was a small tumor pulsating, but giving no thrill in the epigastrium; at times this would almost disappear; milk diet relieved the vomiting, and anodynes eased her pain. Her bowels never moved except with medicine. She left the hospital six weeks since, and resumed her work as domestic. Immediately the tumor commenced to grow and the pain to increase. She soon ceased work and remained in bed. The tumor continued to increase so rapidly that she re-entered the hospital January 27th. She was much debilitated, bowels constipated, urine slightly albuminous, and she was suffering from a very acute pain in the epigastrium. On examination, a tumor was found, filling almost entirely the epigastrium and extending nearly to the umbilicus. It was globular in form, had a smooth surface, and permitted the free movement of the abdominal walls over it. The tumor pulsated both visibly and palpably, forward and laterally; was dull on percussion, had no perceptible thrill, and was painful on pressure. On auscultation a systolic bruit, much more audible in the epigastrium than elsewhere, was heard. This bruit was not conducted down the femoral arteries, and could not be detected posteriorly. On smart percussion along the spine, one tender spot was found opposite the tumor. After her admission the constipation was relieved; tonics and stimulants were freely given, opium and morphine to alleviate the pain.

Thursday, June 3d.—There was a marked diminution in the size of the tumor, and her bowels moved very freely during the day and night. The stools were very fluid and of a dark color. That evening she began to sink very rapidly, and died, with symptoms of prostration and with delirium, at 4 A. M. Friday, June 4th.

Autopsy ten (10) hours after death. Weather temperate, body pale, no rigor mortis.

Abdomen tympanitic. On opening this cavity a large amount of gas escaped from the stomach accidentally incised. Small intestines moderately injected. Liver natural size and markedly fatty. Under the pancreas, which was lifted, was a tumor, noticed during life, which proved to be an aneurism of the abdominal aorta, near the cœliac axis; the orifice being the size of a quarter of a dollar. Sac was filled with a quantity of fine coagula. To the tumor several coils of intestines were very firmly attached, as was the aorta to the vertebral column. There was no erosion of the vertebræ.

Kidneys were not healthy, right being the smaller; left kidney white, mottled with red; cortical substances markedly diminished.

The small intestines were filled with a brick-dust colored fluid, resembling blood; but it was impossible to find the communication between them and the aneurismal sac.

On microscopical examination, this fluid contained no traces of blood. Thorax Left lung was moderately adherent to the costal pleura; there was a small cicatrix at the apex, containing tubercular matter as large as a walnut, but not softened, otherwise healthy. Right lung adherent throughout by old false membranes; there was a small tubercular deposit, not softened at the apex, otherwise healthy. Heart natural in size, somewhat distended with coagulated blood; bowels healthy.

Head not examined.

The case was an interesting one to him, from the fact that the aneurism collapsed without bursting. He thought it was deserving of special mention in connection with the history of the case. He never saw one of this kind before.

DR. CLARK said: I am inclined to think that a termination somewhat analogous to this case is not very uncommon in aneurisms. I can recall several instances where aneurismal disease of this sort has terminated in a very similar way, the tumor subsiding very much, and leading to the suspicion that blood had escaped; yet, upon examination, no blood was found.

I saw a case of a tumor nearly in this same position, in which the pain was extreme, the man being sleepless for many nights on account of its severity. The tumor was supposed to have been formed as the thoracic aorta passes through the diaphragm, for the reason that the pain was principally at two points, at equal distances from the median line, corresponding to the anterior attachment of the diaphragm. I

saw the patient a few hours previous to death. There was syncope, as from loss of blood, and there was no pulsation over the epigastrium. I staid with Dr. Crane perhaps two hours, and finding that the termination was not to be immediate, I was obliged to leave. He died in the course of the night.

The tumor was found, as I remarked, exactly where we expected to find it; but it was found to be entire, and the subsidence of the pulsation had to be accounted for in some other way. We thought the fact explained, by a lack of force in the heart to fill it with blood.

There was found quite a copious exudation of blood in the stomach and intestines. In these respects the cases are quite analogous. In regard to the fact noticed in Dr. Metcalfe's case, that no blood corpuscles could be found, he stated this was common enough, the capsules of the cells being acted upon chemically and destroyed.

DR. METCALFE.—Why is the blood effused into the intestinal canal?

DR. CLARK.—That is more than I know.

DR. METCALFE was of the opinion that this was not a common termination of aneurism. He had seen a good many cases of that disease, but had never known of such an instance before. He had frequently seen them burst, giving rise to the same symptoms as detailed in the case presented, and had seen a case where the patient lived a week after it had burst.

DR. PEASLEE thought the retardation of the blood in the vena cava, from want of sufficient power in the heart, would tend, secondarily, to draw up the blood in the portal system, thus giving rise to hæmorrhage; and the tumor might subside, for the same reason, several hours before death.

DR. METCALFE thought that, if simple retardation of the blood could give rise to such consequences, it would happen very frequently.

Mulberry Calculus.—DR. PEASLEE presented a beautiful specimen of a mulberry calculus, taken from the bladder of a patient, 57 years of age, who died six hours after the operation, which was performed by Dr. Mussey. The patient, a man of high standing, was first seen by Dr. Peaslee the 10th of last August. He complained of a great deal of pain in the region of the bladder, and had suffered considerably from hæmaturia. The doctor at first thought this was the result of a fungus growth; but afterwards, by introducing the sound, detected a large calculus in the bladder. Previous to the operation, the patient had a good deal of hæmaturia, which was very persistent in its character. The hæmorrhage was finally arrested by the use of alum and benzoic acid. He advised the operation of lithotomy, inasmuch as the stone

was too large to be crushed. Feeling that it was a desperate case, he called in Dr. Mussey, who had had a great deal of experience in reference to such cases, having operated fifty-three times. The operation was performed with as little delay as possible, and, notwithstanding the patient was in a very unpromising condition at the time, immediate extraction of the stone offered the only possible chance for him.

It was very difficult to extract the stone, and the operation lasted an hour and three quarters, during the whole of which time the patient was under the influence of ether. After the operation was finished, the patient was put to bed and appeared like any other patient, gradually waking from the anæsthetic; when, twenty minutes after, his pulse began to fail, and, despite the free administration of stimulants, he died in six hours.

The stone removed weighed 3ij.

He stated that the operation, to the best of his knowledge, had been performed skillfully, not more than four ounces of blood having been lost. He believed that the operation was imperative, and he should have performed it if Dr. Mussey had not.

About nine ounces of ether were used.

DR. METCALFE referred to a case where chloroform was administered, and stated that he wished he could think chloroform had nothing to do with it.

DR. MOSES referred to a case of death from either chloroform or ether, in an amputation of the thigh. The patient seemed to come from under its influence very well, but rather suddenly sank, and died in the course of three or four hours afterwards. He attached a great deal of importance to the idiosyncrasy of the patients.

DR. WATTS thought it was very important to draw a dividing line between the effects of ether and chloroform. He was not aware of any death having occurred with ether, though by chloroform it was by no means rare.

DR. METCALFE did not have any doubt that ether was almost devoid of danger to life, while chloroform was known to produce death quite frequently. He was told that there was one recorded case of death from ether in New England.

DR. WATTS asked if the patient could not die from the shock of the operation?

DR. PEASLEE was of that opinion, and thought that the patient would have died without the ether. He had never heard of, seen, or suspected an instance where this agent was the cause of death.

Regular Meeting, November 10, 1858. DR. E. HARRIS, Vice-President, in the Chair.

Abscess of the Brain.—DR. KRACKOWITZER presented a specimen of abscess of the brain, taken from a young man who died the morning before at an early hour. He was 23 years of age, of rather a delicate frame, but otherwise healthy. He remembers having had while a boy a discharge from the right ear for some time, but was ignorant of its cause. As a consequence of this early trouble, the hearing upon the affected side was less acute than the other. He was always healthy from that time until a year ago, when he was stabbed with a knife behind the right ear in a drunken broil. The wound seemed to heal up in the usual way at the end of a week after it was inflicted. A short time after it was healed there was marked pain and swelling of the part. A physician opened the wound, and introduced a tent in order to allow a free discharge; the pain after a while ceased. The wound healed up again, when pain again made its appearance. It was then opened, but was again allowed to heal up, the pain returning, which was not relieved until matter was again discharged. Last July, when he married, these attacks became more frequent and severe. He was then obliged, when suffering from an attack, to hold his head stiff, and, when he wished to rise, to support it with his hands. He was obliged at that time to lie a day or two in bed.

On the 22d of last October he had an attack, the pain of which was so severe that he fainted away.

On the 27th Dr. Vos was called in. I saw the patient in company with Drs. Vos and Jacobi soon after. We found an opening behind the ear about the size of a pea, and, on introducing a probe through it, we struck upon bare bone. We found also a hole in the mastoid process connecting with the cells for an inch and a half. The general symptoms were only those of intense suffering from pain. The skin was natural, pulse 84, head cool, pupils normal, answering readily to the stimulus of light, no distortion of the face, and the tongue protruded in a straight line. There were no symptoms about the chest or abdomen. The patient preferred to lie on his right side. There was in the neighborhood of the diseased point a diffused moderate swelling extending down along the sterno-cleido mastoid muscle as far as the hyoid bone. The aperture in the skin was enlarged in order to give free vent to the matter. We thought, inasmuch as there were no cerebral symptoms, that it was an increase of the crus petrosa, and that no heroic treatment was required.

The symptoms in the course of the disease never changed—never

had a chill, nor was the appetite ever entirely destroyed. He improved somewhat by the enlargement of the wound, but considering this provision to be insufficient for the discharge of the matter from the mastoid cells, an operation was performed on the 6th of the month, in order to give the discharge a freer exit. The external layer of the mastoid process was removed by a trephine, and a free oozing of matter followed the teeth of the saw. The cavity of the mastoid process was filled with a thick, purulent matter, which gave forth an abominable smell. A large quantity of dead bone was removed by Luer's forceps.

The patient was not much relieved by the operation, except that the matter was more freely discharged. The pain was about the same, and he required opiates until yesterday morning, when rather suddenly he became comatose, and soon after died.

Post-mortem.—On opening the skull the dura-mater and pia-mater appeared quite healthy, the brain presented the normal appearance, though it seemed rather dry. A perpendicular incision was made in the brain, dividing the corpus callosum, when the knife entered the third ventricle, and a large quantity of pus oozed out. When the organ was removed it was found that on the surface of the middle lobe there was a large abscess lined with a pyogenic membrane corresponding to the position of this abscess, and on the anterior aspect of the crus petrosa the dura-mater was ulcerated to the extent of a three cent piece, at the bottom of which necrosed bone was exposed. It was impossible to find any connection of the cavity of the mastoid process which is laid open here, with the cavity of the skull. There is a communication between the tympanum and the cavity of the mastoid process. The portio dura, it seems, was not in any way involved in the diseased action. All the other parts of the brain were healthy.

The viscera of the other cavities were not examined.

DR. CLARK thought if it was a surface abscess of the brain that the matter followed under the posterior portion of the third lobe, penetrating through the velum interpositum into the third ventricle. He stated that it was interesting to notice that such a collection of pus could exist in that situation, without giving rise to any manifestations of disturbance of the cerebral functions.

DR. KRACKOWITZER thought if the abscess was situated only on the surface that the pia-mater would have an exudation upon its surface. Such, however, was not the case, as that membrane was healthy throughout the whole of its extent.

DR. WOOD remarked that surface abscess from syphilitic disease

of the brain was of frequent occurrence, and had existed for years without disturbing the cerebral functions. He operated some time ago upon a case of necrosis of the os frontis from syphilitic disease. The disease had existed for a long time, attended during most of the time with persistent and rather severe pain. All at once the patient became comatose, and was brought to the hospital with all the symptoms of compression of the brain. Being present at the time of admission, he trephined and opened into a large surface abscess, which communicated with an abscess in the lateral ventricle, which was secondarily formed. He said that such abscesses might exist for a long time without interfering with the functions of the brain. He had trephined several for this abscess with marked relief. He stated that there are two kinds of ulceration of the temporal bone, extending from the external ear in the form of otorrhœa, which eventually reach to the brain, inducing surface abscess. In one case a local acute meningitis is the result, while in the other a chronic abscess is formed which will allow the patient to live for a long time.

Cancerous Testis.—DR PARKER next presented a specimen of cancerous testis, removed from a child 10 months old. He said the child was brought to him from the country. The physician was in doubt as to its precise character, but thought that it was either hydrocele or malignant disease of that organ.

Dr. Parker could discover no positive symptoms of hydrocele, there was no translucency present, and the whole organ seemed to be involved in a diseased action. The child itself is as healthy as ever, as is also the case with the whole family. The exciting cause seems to have been a slight blow on the testis about six or eight months ago. About six months after the accident it was noticed that the testicle began to increase, particularly within the last week or two. During all this time the patient complained of no considerable amount of pain. The testicle according to his advice was removed, and was found to be encephaloid. He stated that there was a very singular structure in the centre that gave the appearance of tubercles, but was afterwards found to be composed of fatty matter. He stated further, that this was the youngest subject in which he had met with this disease.

DR. WOOD stated that he had never seen the disease in a subject so young, and asked, in that connection, what was the largest period a patient was known to survive after the organ was removed? According to his experience the duration of life was about equal to that after extirpation of the breast for this disease; that they hardly ever live over two years. He referred to encephaloid disease.

DR. PARKER stated that he had seen several cases of true encephaloid disease of the organ, upon which he had operated, and never had a patient live over a year. Frequently he noticed the disease to return in six months, and the patient die in nine. He had seen two cases of amputation of breast where one lived five years and the other six years after the operation.

REVIEWS AND BIBLIOGRAPHY.

The Modern Practice of Midwifery—A Course of Lectures on Obstetrics, delivered at St. Mary's Hospital, London. By WM. TYLER SMITH, M.D., Member of the Royal College of Physicians; with an Introductory Lecture on the History of the Art of Midwifery, and Copious Practical Annotations, by AUGUSTUS K. GARDNER, A.M., M.D., late Instructor on Obstetrics in the N. Y. Preparatory School of Medicine, Author of the "Causes and Curative Treatment of Sterility," etc. Illustrated by 212 Engravings. New York: M. De Witt, Publisher, 160 and 162 Nassau Street.

In our day of universal publishing, when the market is flooded with literature which is only too little condemned by calling it worthless, and when especially the physician, who wishes to keep himself informed of the existing state of his science and art, has to devour so much crude trash for the sake of appropriating a very small amount of nutritive material for his mental digestion, the supposition is always against a new book. It comes before the profession like a criminal on its trial, and unlike a criminal in our courts of justice the burden of proof lies on itself. The charge stands thus: "You, 'Modern Practice of Midwifery,' or whatever your name be, stand accused by the High Court of Medicine of appearing in the midst of an unoffending association of busy men, and under cover of a sheepskin back and handsome typography, pretending to convey to them useful information on topics connected with their art, while you are in reality a wolf in sheep's clothing, seeking to extricate sundry dollars from the pockets of this respectable fraternity, and to devour their time and their patience, which are more to them than their dollars—your chief object, however, being self-glorification. The only ground for bringing this charge against you is the fact that other new books have done the like before. On this grave accusation, therefore, of obtaining time

under false pretences, you are put upon your trial, and are expected to prove your innocence of it."

It must be allowed that this is rather harsh treatment; perhaps the old Anglo Saxon love of justice a little rebels against so unceremonious an inversion of one of its holiest dogmas, but severe diseases require severe remedies; while we may conscientiously pray "From all sedition, privy conspiracy, and rebellion good Lord deliver us," we all of us, probably, in America acknowledge the occasional beneficial working of a Vigilance Committee; and so in this case, until men can learn to wait until they have something really of value to the profession before rushing into print, this task of proving the negative must be thrown upon them. They must be able to show that their books contain either new facts, or new deductions from old facts, or old deductions from old facts, stated in a clearer, simpler, or more engaging manner than they have heretofore been. If a book can establish for itself a claim for none of these merits, it is damned; it is entirely unnecessary to look for its positive faults—its absence of virtues is a sufficient reason why it should not have obtruded itself upon our notice. On the other hand, a book may have many glaring faults, and yet if it can conscientiously assume for itself one of the above mentioned merits it will stand, its faults will be forgotten, if not pardoned, for the useful and the good that is in it.

Now, before beginning this volume itself, it makes us three pleas which go very far towards triumphantly asserting its innocence, and still further of claiming from us an unusual degree of respect and attention. First, its author's name, which is known to all intelligent practitioners as that of a man who, though perhaps sometimes open to the charge of partizanship, is yet an earnest searcher after truths, a hard student, a laboring practitioner, and an exceedingly acceptable teacher. Secondly, its appearance in the serial manner in the *London Lancet*; for we are happy in believing that we have at least one medical journal in the English language, the publication in whose pages of a series of communications on any topic extending over a sufficient number of issues to entitle it to the place, if not to the name of a treatise, is sufficient to ensure their practical and scientific value. Thirdly, the fact that while these lectures were still in process of serial publication they attracted the notice of a practitioner in our own city, who, while his duties as a journalist enabled him to compare them intelligently with other productions on the same subject, which have recently appeared, was at the same time fully competent, from his constant and active experience, to judge of their practical value to the practitioner

as well as to the student; and so much was he convinced of their superiority, that he formed the opinion "that if collected into a volume they would form the best body of midwifery extant." To this conclusion we owe the book in its present form; and while we cannot, perhaps, fully endorse the editor's opinion, we do appreciate very great merits in the work, which we shall proceed to notice.

The lectures are, as Dr. Gardner observes in his introductory lecture, "written with great clearness and precision." Whether we may always be disposed to accept the author's views or not, we are always able to understand them, simply because he evidently understands himself, and further possesses the somewhat rare faculty of conveying his ideas in simple and accurate language.

The plan of the course presents this slight difference from that usually pursued by authors and teachers, in that while the consideration of the organs of generation is early taken up, the description of the anatomy of the pelvis is deferred until after the subject of the sexual functions, conception, pregnancy, its disorders and anomalies, and the gravid uterus, with its nervi-motor functions, &c., have been dealt of, and then introduced with its relations to the foetal head, immediately before the chapter on the mechanism of labor; and we incline to think the arrangement a more natural and, for the student, practically useful one. The division of the work is systematic and careful. The author certainly begins at the beginning, if not a little before it, for his first chapter is "Generation," not in the human species, but primarily in the very lowest forms of created being. This he justifies on the ground that "there are no races so low in the scale of creation, but that the history of their generative phenomena is calculated to throw light upon the same functions in classes of the highest rank in the animal." He begins with the long agitated question of "Spontaneous or Equivocal Generation." He considers the only ground now left upon which the supporters of this theory can now stand to be generation in the infusoria and entozoa.

The first he holds to be sufficiently disproved by the now established fact that the presence of air is necessary to the production of animalcules in vegetable infusions, which air doubtless contains the germs of infusoria, if not the infusoria themselves, and that air can be so treated by caustic potash, by sulphuric acid, and by heat, that its presence shall be entirely inefficient to produce them. And with regard to the second, he considers that the indestructibility of their ova, together with "their powers of penetrating animal tissues, appear sufficient to explain all the seeming mysteries respecting entozoa without resorting

to the theory of spontaneous generation." In these conclusions we think all unprejudiced scientific men will agree with him, for the doctrine would present an anomaly in the laws of the universe from which the mind instinctively shrinks. Beginning with Fissiparous Generation, Dr. Smith traces up the various steps of development in this function to its highest exhibition in the human being, which he notices very briefly, and concludes this very interesting chapter by attributing the pains and perils of child-birth, and the consequent necessity for the study of obstetrics, to the more "intimate vascular intra-uterine connection between the mother and fœtus," the greater "intricacy of the organs of generation, the arrangements of the pelvis in accordance with the upright position, and the comparatively large size of the brain and cranium of the human fœtus," to accommodate the greater "development of the human intellect."

A verbal quotation from Meigs, in the second chapter, on the external organs of generation, in which with his frequent happy use of language he styles the clitoris "the organ of touch to the aphrodisiac sense," affords us an opportunity for remarking a feature of this work in common with others lately issued by the English school, namely, a growing respect for the opinions and practice of American physicians, taking the place either of the utter disregard, or the supercilious tolerance with which they have heretofore been disposed to receive all our contributions to science. A notable instance of this is to be found in the very generous, as well as flattering manner in which the recent very valuable work of Dr. Bennet on Clinical Medicine speaks of the labors and results of Dr. Horace Green, and the unequivocal support which he gives to his mode of treatment, as vastly superior to all others. Throughout his work Dr. Smith refers constantly to the "practice in America," in a manner that shows a decided familiarity with that practice, as well as a recognition of the fact that America has a practice of its own, different from that of England or the Continent, although oftener, perhaps, assimilating to the latter than the former, especially in the subject under consideration. Dr. Meigs is quoted probably oftener than any other American obstetrician, and notwithstanding his many eccentricities, and, perhaps, affectations, his work is certainly the most elegant, scholarly, and original treatise on that subject ever yet published in America; and until some one with his genius, but without his prejudices, will write us a better one, we must consent to be represented by his. We mention this tendency, not because we think that American physicians stand in need of British approval, but because it shows that the profession here is beginning to take its

place on a level with that of other countries, in *their* estimation, which we consider to be the initiative to its occupying, as it must eventually do, the very first rank in the grand march of medical science.

This chapter contains a digression (p. 51) for the student, very valuable because practical and clear, on the "methods of performing catheterism." The author differs from most writers in supposing that the number of mucous follicles in the vagina is large, the only point at which he has detected them numerous being at the outlet. He is rather disposed to attribute the mucus of the vagina to epithelial action. On the other hand, he dwells (p. 64) with peculiar stress on the immense number of glands in the mucous membrane of the cavity of the cervix, summing up the subject in the rather forcible expression, "The cervix uteri may, in effect, be considered as an open gland." He prefers, and properly, the term nulliparous to that of virgin uterus, for, as he says, (p. 67,) "intercourse without impregnation exerts no influence upon the anatomical characters of the organ." As regards the source of the menstrual flow, about which there must be a greater difference of opinion in Great Britain than we suppose to exist in this country, he concludes (p. 92) that "all the exact evidence we possess points to the cavity of the body of the uterus as the true seat of menstruation," which is the generally received opinion here.

Shortly after, he enunciates the "rather startling" doctrine, that at every menstrual flow the mucous membrane, lining the cavity of the uterus, exfoliates in a disintegrated state, and a new one is formed; and this idea he labors, somewhat at length, to substantiate. It would require more evidence than he adduces to make us willing to adopt so bold a theory, although his arguments do make it appear a little less startling than it would, at first hearing, seem. We can imagine how very "startling" it must appear to Dr. Meigs, who, we believe, finds it yet "difficult to comprehend" how the mucous membrane, "once thrown off as a decidua, can ever be reproduced for the service of subsequent pregnancies." The subjects of fecundation and conception, the anatomy of the placenta, &c., are all brought up to very last developments in those branches of study, and are clearly and ably elucidated.

In treating of the development of the ovum, (p. 106,) he makes the following suggestive, though somewhat humiliating, reflection: "The subject of the evolution of the perfect individual from a triple membranous sac would admit of extensive development in human physiology and pathology. Man in his greatest pride does but consist of the involutions and devolutions of these membranes. Upon the vital

energy possessed by these layers depends his health, his tendency to the diseases of the system evolved from them, and the duration of his existence." It is a little singular that, in speaking of the alterations of the cervix uteri during pregnancy, (p. 137,) he should make not the slightest mention of the opinion of M. Stolz, (added by the American Editor,) now so generally received in France and in this country, and so completely at variance with his own, though old theory of absorption into the body of the organ. We have latterly been inclined to adopt the opinion that neither of these theories is consistent with facts, but that probably that of Professor Braun, of Vienna, who strikes a sort of middle course, and, while admitting the softening from below, still adheres to the opening from above, is nearest the truth.

Passing over many interesting topics, we come to a chapter (Lecture xvii.) on the "Nervi-motor Functions of the Uterus," in which are considered, 1st, the "relation of the cerebral system to uterine motor action;" 2nd, very carefully and instructively, the "forms of uterine action depending on the spinal marrow;" and, 3rd, "peristaltic action, or ganglionic motor action." And it is in the careful manner in which the author has elaborated this branch of the subject, and the valuable practical deductions which he draws from it later in the work, when treating of puerperal convulsions, that we conceive the strength and value of the book to lie. We take the liberty, therefore, of passing over the conduct and mechanism of labor and kindred subjects, which, although well treated, do not present much that is new, and, as far as mechanism goes, are, indeed, scarcely up to the French standard, and proceeding at once to the very important chapters on puerperal convulsions and puerperal fever. (Lectures xli. and xlii.)

The causes of convulsions are divided into centric and eccentric. Centric causes may be intra-cranial, intra-vertebral, or both. Among intra-cranial or cerebral are enumerated "the excitement inseparable from parturition; effusion, sanguineous or serous; cerebral distension in full states of the circulation; any intra-cranial diseases of tissue. Among intra-vertebral—disorders of the meninges; spinal congestion and anæmia; any impure state of the blood. A psychical centric cause is found in emotion. Eccentric causes are found in irritation of the uterus itself and of the uterine passages. The influence of the pressure of the head in the vagina has not, he thinks, yet been sufficiently considered. Irritation of intra-cranial excitor nerves, including irritation of the meninges, from whatever cause, and the presence of a clot in the brain. Irritation of any of the viscera."

The grand key to the explanation of the action of the causes of pu-

erperal convulsions he finds in the physiology of the true spinal marrow, which, he contends, is in a state of excitement resulting from the irritation of those of its nerves which come from the uterine organs.

Starting from these principles, he proceeds to lay down plans of treatment varying with these different pathological states, and points out, with great clearness, the classes of cases in which the great remedies of blood-letting and opium may or may not be used with advantage. Although not long, the chapter takes one of the most comprehensive and rational views of the subject yet published. It concludes with a consideration of convulsions from albuminuria. The chapter on puerperal fever opens with the startling announcement that about three thousand mothers die in childbed annually, in England and Wales; among the most prominent causes of which mortality is the disease in question. As regards its nature, Dr. Smith takes most unequivocal ground in favor of its being a blood poisoning; no matter what its peculiar manifestation—peritonitis, phlebitis, metritis—the cause is one and the same, “namely, some animal poison or zymotic influence.” On the question of its contagion and infection, he is equally undoubting, considering that “evidence, as irrefragible as that which can be advanced in the case of any other malady whatever,” can be adduced in proof of it in this case. He even goes so far as to assert his belief that the blood of an attendant upon a case of this disease may become so infected that he may, in that way, transmit the disease to another puerperal patient, and considers that this saturation of the blood may continue for a considerable time. In his treatment he suggests nothing particularly new, or that is likely to prove as efficacious as our American methods of treatment, by opium in heroic doses, and *veratrum viride*.

In conclusion we may say, that Dr. Smith's style is pleasant, his English good, his mode of expression clear and elegant, and his work, as a whole, very readable, as well as practically instructive.

Dr. Gardner has shown great judgment in making his additions, only doing so when there was an evident want in the book, and then briefly and well. We would simply mention his introductory lecture, which contains more facts on the early history of the art than were ever before collated—Kolrausch's plate of the organs of the pelvis, with description; Dr. Sims' elevator and position; Prof. Dr. Brann's “colpeurynter;” on hæmorrhage occurring after the birth of the child; on operations on the os and cervix uteri; on the tractor, and on the use of chloroform. The very slight attention to this last subject which

Dr. S. has given in his lectures, is only to be accounted for from the fact that the separate lecture which he promises on it is not published with the others. Dr. Gardner is certainly entitled to the thanks of the profession in this country for having brought the book, in its present handsome form, before them, with his own valuable addenda; and we feel confident that he will excuse us if we recommend to him, in conclusion, a little more careful attention to style in writing. It is of exceeding importance that a literary man, and especially a physician, should express himself clearly and unambiguously, if not elegantly. The author of "Old Wine in New Bottles" has proved that he can write elegantly, and he is, therefore, not to be excused when he writes carelessly. We might give instances of what we mean, but we feel certain that Dr. G., if he will carefully re-read what he has written, will acknowledge it to be susceptible of being expressed both more clearly and more elegantly; and the exercise of a little restraint and discipline in this respect will be of great and lasting benefit to him.



The History of Prostitution: Its Extent, Causes and Effects throughout the World. (Being an Official Report to the Board of Almshouse Governors of the City of New York.) By WILLIAM W. SANGER, M.D., &c., &c. New York: Harper & Brothers. 1858.

That prostitution is an evil of vast magnitude, and extremely difficult of control, few, who have any knowledge of city life, will hesitate to admit. Its history, and the repression of its evils, have at various times excited the attention and challenged the investigation of some of the ablest political economists and wisest legislators. Among those who stand deservedly conspicuous in this department of social inquiry, is M. Parent-Duchatelet, whose treatise not only furnishes an epitome of all that is valuable in the authors who preceded him, but abounds in exact information and philosophic inductions. Its appearance in France was almost immediately followed by such a change in the legislation affecting this subject, and the police surveillance exercised over it, as to mitigate many of its most glaring defects; and although it could not repress, it largely contributed to modify, the evils incident to its existence.

During the past year a work somewhat similar in purpose, although far less forcible in character, has been issued by one of the leading publishing houses in this city, (Harpers,) under the auspices of the

Board of Almshouse Governors of the City of New York, written by Dr. Sanger, Resident Physician at Blackwell's Island. This island, which, as most of our readers may know, contains two penal establishments and an almshouse, where most of the wretched and vicious of the population of the city sooner or later are found, furnishes unfortunately an ample opportunity for making observations upon that class of unfortunates described in Dr. Sanger's volume.

With the history of prostitution, which occupies 450 of the 676 pages of this work, and which the author says is chiefly compiled from other writers, it is not our purpose at present to deal. What more directly arrests our attention are the facts connected with the city of New York, collected under the author's immediate supervision, by the aid of the police force placed by the city authorities at his disposal. The plan adopted was not to confine the inquiry to the prostitutes who were sent to Blackwell's Island, but to take a census of the city "so far as regards prostitution, including the number of houses of prostitution, the number of prostitutes, the cause which led them to become such, their ages, habits, birth places, early history, education, religious instruction, occupation, etc." This census was taken under the direction of the chief of the police, and it became Dr. Sanger's duty to assist the officers in the execution of their task; hence he says, "I am thus enabled to speak with certainty as to the authenticity of the statistics given, which were mainly collected under my own observation."

The recapitulation of Dr. Sanger's work states that there are six thousand public prostitutes, the majority of whom are between the ages of fifteen and twenty-five, three-eighths of whom were born in the United States, the remaining five-eighths having come from abroad. Nearly one half of these are either laboring under the influence of that loathsome disease, syphilis, or have been treated for it. The larger proportion of these prostitutes are from the humbler walks in life, and are possessed of little education, slender morals, and are usually addicted to habits of intemperance. Their irregular mode of life, the constitutional effects of syphilitic disease, which is scarcely ever eradicated from the system, their unnatural excitement, and their addiction to the intoxicating cup, altogether operate in so summary a manner that it requires on an average but the short space of four years to precipitate the poor victim of these unhallowed practices into a pauper's grave.

It might readily be imagined that some strong and overweaning impulse, scarcely possible of resistance, usually operated with the sepoor creatures to induce them to enter into a career of infamy whose in-

evitable tendency is to terminate in an untimely death. The causes which lead them to a life of prostitution becomes in this connection an interesting inquiry. Of the two thousand persons who answered this inquiry, (and here we would remark that, although Dr. Sanger fixes the number of public prostitutes at six thousand, all his inquiries and investigations are limited to two thousand,) but one-fourth appear to have entered the life from inclination, and a larger part of these have been chiefly moved by a desire to obtain spirituous liquors. The remainder were for the most part influenced by a desire to lead an easy life, fondness for dress, drink, company of vicious persons, laziness, and absolute want. Scarcely one in a hundred of these deluded creatures is impelled by the same motives of desire which operate with the male partakers of their couch; they not only admit, but seek the embraces of their male companions for the pecuniary compensation bestowed upon them.

The motives which led to the adoption of this course of life, as exemplified by the New York courtezans, correspond very nearly with the results of the researches made by M. Parent-Duchatelet in Paris in 1832. Of the 5,183 who answered the inquiries of this eminent philanthropist,

There were impelled by want.....	1,441
Expulsion from home or desertion by parents... ..	1,255
Desire to support parents, brother, or families.....	89
Girls from country.....	684
Servants seduced by masters.....	289
Concubines abandoned by lovers.....	1,425
	<hr/>
	5,183

It will be observed in Duchatelet's list, that few confess the impelling motives of idleness, love of dress, and fondness for drink acknowledged by those of New York as strong inducements. The chief fact worthy of note, exhibited by the statistics in both cities, is the small number who have adopted this life in either city, without deliberation and an opportunity to escape from it if they choose so to do. This fact is especially gratifying to the philanthropist, because it demonstrates that the obstacles in the path of a reformation are not of the most serious nature, and leads to the belief that this great evil, although it can never be entirely obliterated so long as men have base passions, and females are willing to pander to them for the sake of gain, may, by proper municipal regulations, be largely curtailed and deprived of many of its most revolting features.

From the large experience of Dr. Sanger, as physician at Blackwell's Island, as well as the great facilities afforded him for observation by the municipal authorities, we were led to believe that his researches had been so thorough, his statistics so full, and that his suggestions would be so practical, as to presage the improvement in this abandoned class to which we have alluded; but a careful perusal of the work has greatly disappointed us, and we are irresistibly led to the conclusion that, in regard to the facts with which the author should be most familiar, he has not exhibited that care in their collection and arrangement due to the subject and his own reputation. Instead of the calm philosophical views which characterize the work he has taken for a model, he has covered whole pages with conversations which are puerile, if not positively objectionable, and should have no place in a statistical work.

It is no easy task to present such a subject to "ears polite," without offending their sense of delicacy, and requires on the part of the author a high moral purpose, a perfect familiarity with all the facts he adduces, an extended power of philanthropic induction, and an enthusiasm which insensibly imparts itself to the reader. Such a one was M. Parent-Duchatelet—such is not Dr. Sanger—else why should a work, intended to produce a great moral reform, contain passages that might well associate it with the yellow covered literature so carefully excluded from the houses of those who lay claim to respectability. As an example of these grave defects, we would refer to the chapter on houses of assignation, at page 566, in which we are informed that the most exclusive of these houses are "generally situated in the quietest and most respectable portions of the city. They are fitted up neatly, and even luxuriously, but without any extravagance or gaudy display," * * "The business of these houses is done mainly during the promenade hours of Broadway, say from eleven or twelve to four or five;" and the visitors are confined to the upper walks of life, "the men being of all sorts of business, and the women *exclusively from our fashionable society.*"

This whole description, occupying many pages, is drawn with a particularity which would lead to the belief that it had been witnessed by Dr. Sanger and his police associates, when in fact it is the veriest figment ever written by a penny-a-liner to catch the ear of the gaping or too credulous crowd of readers. The statistics of the causes which induced the majority of the wretched inmates of the brothels (which, notwithstanding all assertions to the contrary, are invariably in the most miserable quarters of the city,) to adopt this mode of life, as

explained by Dr. Sanger, should have satisfied him that among the upper classes of society everywhere, with here and there an exception, the women are strictly virtuous. Nature has placed such safeguards around them as to enable them to secure the bright jewel of untarnished reputation inviolate, unless disposed of with their own free consent, and usually from other motives than the insane impulse of a moment. We desire to be distinctly understood upon this point, because there is a class of men, depraved in principle and low in association, who attempt to make light of female virtue. So long as these imputations are confined to the circle which originated them they are unworthy of notice, but when they appear in a goodly volume, issued under the sanction of the "Board of Ten Governors," they assume an authority which demands a refutation.

Leçons sur le Traitement des Tumeurs Hémorrhoides par la methode de l'ecrasement lineaire, par M. E. CHASSAIGNAC, &c., &c.

"Treatment of Hæmorrhoids by the use of the Ecraseur."

This is a monograph on hæmorrhoidal tumors, containing the history of forty-seven cases, illustrative of a new mode of treatment, which is just beginning to be made known. Reviewing the various methods hitherto in use and commonly practiced by surgeons, M. Chassaignac claims the idea of "*making use of a metallic chain for the removal of a hæmorrhoidal tumor in a few minutes, and without the loss of blood.*"

The instruments used are the "ecraseur," either straight or curved, and "pincers" with diverging claws to bring the parts outside. The patient is placed on the right side, the tumors secured by the claws, and a ligature passed around their base so as to pedunculate them. This ligature may include one or more, and even the entire circle of the rectum. The chain being adjusted, the instrument is made to constrict the base to the utmost, and then is put into motion slowly, the time recommended being *one turn in fifteen seconds*. The operation is made to last from five to twenty minutes, according to the amount of substance to be divided.

Let us compare this with other modes of treatment. Many years ago surgeons resorted to the knife, and internal piles were *excised*. The ligature was regarded as an evil, bringing with it fears of phlebitis, inflammation of the cellular tissue of the pelvis, peritonitis and tetanus. Sir A. Cooper says: "For excision, in the early part of

my surgical career, I was a strong advocate; for I found it a less painful operation than ligature, and it appeared to me not dangerous; but, as my experience increased, I was induced to change my opinion and to consider excision as not divested of danger." He gives an account of two cases in which death resulted from the effect of the bleeding that supervened upon the operation.

Mr. Brodie states that he nearly lost two patients under the same circumstances. Mr. Cline was in favor of excision also. Petit and Boyer excised, but give minute cautions against hæmorrhage.

Mr. Syme, quoting Sir A. Cooper's cases, says: "If other practitioners had been equally candid, we should, doubtless, have had more testimony as to the danger of this operation; and every surgeon who has practised it must have experienced more or less alarm. Before my own views were settled as to the best means of treating the disease, I, on one occasion, cut away an internal hæmorrhoid which was partially protruded, and I found it necessary to employ manual pressure for several hours, to restrain the bleeding that followed. In another case I succeeded in securing the vessels by ligature."

Dr. Bush, in protesting against the operation, says: "I have performed the operation several times, and after it have had to tie up arteries, plug the rectum, and, in one instance, to apply the actual cautery. Indeed, I so nearly lost two patients that, when left to my own choice, I no longer have recourse to this operation."

Ligation, by the ordinary silk ligature, or by silver wire, is the operation most frequently resorted to. Now let us see what is said of this method. Boyer says, "there are grave inconveniences attending it; the application is difficult and very painful. It is not always successful, and then it may give rise to severe inflammation, extending to neighboring parts; to convulsions, and all the symptoms of strangulated hernia." Petit gives two cases in which ligation caused very violent symptoms; in one the ligature was removed, with cessation of the alarming symptoms; in the other, nausea, hiccough, vomiting and severe pain came on, and could not be relieved by any treatment; they continued equally severe after the ligature was cut, and the patient died on the twelfth day.

Curling, Salmon, Coulson, Syme, and the majority of surgeons in our country, make use of the ligature. The ligature generally separates from the fourth to the tenth day; during which the unfortunate patient suffers great agony, especially during the first forty-eight hours, and then we are obliged to resort to anodynes by the mouth and locally, and keep him in bed for ten or twelve days, even if every-

thing progresses favorably. But we may have the inflammation, involving bladder and vagina, or tissues about the pelvis, and abscesses, prolonging the case for weeks and even months.

At various times different escharotics have come in vogue; thus Amusat *filis* has invented an instrument to apply caustic potass to the base of the tumors; and Mr. Houston, of Dublin, and Mr. Lee recommend nitric acid. Mons. Thiery applied the perchloride of iron to their blistered surface. Tinct. iodine has been much used, and wires heated by the galvanic battery. All these means are excessively painful, hard to control, very uncertain, and difficult of application.

Now, what advantages have we in this novel operation of Mons. Chassaignac?

The operation is not *usually* followed by the loss of blood, though this *may* occur; but no unfortunate result has ever happened; the patient suffers little inconvenience after the operation, and is able to return to his business in from five to fifteen days. We have performed this operation several times, and in but one case was there more than half an ounce of blood lost. The convalescence has neither the tedious delay, the extreme pain and irritation, nor the dangers of ligation.

After the operation, and the patient has recovered from anæsthesia, many cases have so little uneasiness, that they are incredulous as to the fact of any operation having been performed. Sometimes there is more or less pain for an hour or two, resembling "labor pains," caused by the spasmodic action of the sphincter. "In some rare cases the painful contraction of the sphincters continues for half a day; but in most cases there is rather a soreness, which goes off in half an hour." In our cases, the patients have slept well the same night. Of the forty-seven cases operated upon by Mons. C., forty-four were *well* within thirty days, and three were so broken down by long continuance of their malady and hæmorrhages, as to require sixty days to recover a good condition of health and strength.

It is *positive* and *certain* in the result. M. Chassaignac kept most of his cases in review for over two years, and he found that, in those who had been troubled with constipation, the fæces were now regular and easy; only two had suffered from any subsequent hæmorrhage, one of whom led a very active life; and in those who were anæmic and broken down, strength and robust health were re-established.

Patients from nineteen to seventy years of age were subjected to the operation, and a female far advanced in gestation. Above one hundred cases have been operated upon in Paris, at the Hospital La

Ribossiére, and with only one unfortunate result; and in this case the chain broke in the midst of the operation. When we consider the frequency of this disease, the great pain and inconvenience attending it, its effects on the mental and physical health, we must congratulate the afflicted in having before them a safe, speedy and effectual cure.

J. M.

SELECTIONS.

Ulcers of the Legs, not of a Syphilitic Character; Exhibition of Iodide of Potassium; Cure without the Assistance of Rest.

Every method of treatment directed against diseases frequently observed in the laboring classes, and which does not compel them to interrupt their daily occupations, deserves favorable notice. Thus Baynton and Ph. Boyer rendered a great public service in discovering and propagating the treatment of ulcers of the legs by the application of straps of adhesive plaster. This very year, we saw the late Ph. Boyer, but a few months before his death, apply this method which Roux imported from England in 1814. He began by cauterizing deeply the sore with lunar caustic, and then with straps of plaster about an inch in breadth, and six or eight inches longer than the circumference of the limb, he covered the ulcer with a series of imbricated rings, the uppermost of which reached about an inch above the sore, and the lowest strap as far below. A roller or an elastic stocking was afterwards applied to the leg and foot, and was preserved night and day. The apparatus was removed after forty-eight hours, and subsequently at irregular intervals whenever the patient complained of pain. Since the year 1832, when Ph. Boyer proposed to the *Conseil général des Hôpitaux* the adoption of this method, and also that individuals, bearing ulcers of the legs, should in future be treated only as out-door patients, the duration of the treatment has been on the average 26 days. In the wards of Professor Roux and Velpeau, where this method was adopted, and moreover the patients kept constantly in bed, 15 days was the mean average of the same treatment. It is, however, a fact proved by observation, that the cicatrix in the first instance is stronger, more supple, and resists better than the scar formed while the patient was confined to his bed. Boyer's treatment leaves therefore fewer chances of relapse, and further, the invalids are permitted to walk, a twofold advantage which cannot be too highly appreciated in the case of indigent persons.

However, if Baynton's method is in many instances productive of beneficial results, it occasionally fails even in cases which are under no specific influence: it is therefore useful that the surgeon should have at his disposal some other means possessed of the same advan-

tages, and according to two respectable practitioners of the City of Nantes, Drs. Tigé and Trastour, iodide of potassium supplies the required desideratum.

In a recently published paper, Mr. E. Trastour states that for the last ten years Dr. Tigé has been in the constant habit of exhibiting iodide of potassium for the treatment of ulcers of the legs, without once having failed in obtaining a cure. The author estimates at upwards of 20 the number of patients who have recovered in spite of the most adverse circumstances. The following is a specimen of the cases recorded in Mr. Trastour's publication:

A husbandman aged 55 was affected for ten years with an ulcer situated on the internal surface of the lower half of the left leg; the sore was broad, its fundus was of a purple hue, its depth 5 lines, the secretion sanious and reddish; the skin around it was tumefied, and covered a vascular network of varicose veins which extended as far as the foot. On April 26th, Mr. Tigé prescribed from half to three-fourths of a drachm of iodide of potassium daily, fomentations with the decoction of walnut-tree leaves, and pressure with a linen roller. On May 8th the ulcer was almost healed, but the skin being still tight, red and shining from the foot to the middle of the leg, the treatment was persevered in, with the addition of linseed-meal poultices. On May 22d the wound was entirely cicatrized, and the patient, who during the whole time of the medication had not interrupted his agricultural labors, walked eight miles without the least pain, for the purpose of exhibiting his leg.

Mr. Trastour relates seven or eight equally satisfactory cases which occurred in his own practice. He further remarks, that the method towards which he calls the attention of the profession prevents in no wise the application of topical remedies, which alone in numerous cases are sufficient to insure success; but the facility, speed and solidity of the cure due to iodide of potassium, united with external applications, in cases in which the latter would have been inefficient, seem to him unquestionable.

The doses in which Messrs. Tigé and Trastour exhibit the drug are from $\frac{1}{2}$ a dr. to one drachm daily; in severe cases, Mr. Trastour has given as much as $1\frac{1}{2}$ dr., a quantity he has never exceeded. He prescribes it in water, a tablespoonful to every $\frac{1}{4}$ of a drachm before meals. When the medicine is prescribed in large quantities, 2 ounces for instance at a time, the apothecaries of Nantes have consented to sell it at the low price of two pence a drachm, to poor persons. On the average, the cost of the treatment is from one penny to three pence daily during a month or two, a very moderate expenditure, when it is further considered that the patient not being reduced to inaction, is enabled to earn his livelihood.—*Journal of Practical Medicine and Surgery.*

The Deaf and Dumb in France number, according to official statement, about 30,000; and of the blind the number is much greater. Only two-sixths of these at present receive education; but an attempt is now being made to impart to the whole of them the benefit of instruction.

Of the Treatment of Organic Strictures of the Urethra by Iodide of Potassium.

Dr. Thielmann, surgeon of one of the hospitals of St. Petersburg, has utterly relinquished the last thirteen years the use of the mechanical means habitually employed for organic strictures of the urethra, which he treats exclusively by iodide of potassium. This medication has perfectly succeeded in 27 cases of stricture presenting a great diversity with respect to seat, extent, structure, etc. With the greater part of the patients a more or less copious gonorrhœal discharge was present at the same time. The oldest strictures were of two years' standing, the most recent of eight months. With a great number of subjects bougies Nos. 2, 3 and 4 could be introduced without much difficulty; with two individuals a bougie No. 1 could not penetrate in consequence of the tortuous direction of the passage. The stricture had already induced a dilatation of the membranous portion of the urethra situated behind the obstacle. The seat of the strictures treated by Dr. Thielmann was sometimes the spongy portion of the urethra in the vicinity of the bulbous portion; at other times, this latter portion itself. They occupied in three cases the membranous portion; in none the fossa navicularis. On exploration, when such was possible, the strictures generally presented themselves in an annular or semi-annular form. In some patients they seemed to be composed of irregular scars, of variable shape, which could be felt by the surgeon touching externally the course of the urethra. They had all, without exception, a callous consistency.

Mr. Thielmann exhibited to each of his patients three tablespoonfuls a day of the following solutum:

R—Potassii Iodidi..... 2 dr.

Aq. destill..... 5½ oz.

He prescribed a rigid milk diet, permitting amylaceous food. When any iodic symptom manifested itself, he diminished the dose until the patient could bear a stronger one. Iodide of potassium regularly produced the effect of determining a gonorrhœal discharge, if it did not previously exist, or of increasing it, if it was already present. As the discharge took place, a softening, a melting, as it were, was effected in the inodular tissue, which constituted the stricture, and the stream of urine returned by degrees to its normal dimensions. The duration of the treatment varied from a fortnight to two months, according to the degree of the coarctation. It was sometimes requisite momentarily to suspend the use of the iodide of potassium, in order to avoid the accidents that might be superinduced by its protracted use. When the inodular tissue of the strictures was felt externally, Mr. Thielmann ordered, in addition to the external use of iodide of potassium, frictions along the part of the penis corresponding to the urethra with an ointment composed of

R—Potassæ iodid..... 1 dr.

Adipis..... 1 oz.

The gonorrhœal discharge for the most part ceased spontaneously. When it was persistent it was treated by the ordinary means.—*Med. Zeitung Russlands—Journ. Pract. Med. and Surg.*

Medical Journals and their Uses.

A distinguished explorer relates the story of a Greenlander, who was filled with pity and commiseration for the "poor Europeans," who were forced to drag out their existence without ever knowing the luxury of fish oil and blubber, as a prime article of food. "How do you live," says he, "without the fat of seals, and a measure or two of oil every day?" Surrounded, as we are, by periodical medical literature, breathing the stimulating atmosphere of medical progress, living in the midst of our fifty or sixty highly prized exchanges, domestic and foreign, greeting their coming, devouring their contents, and inhibiting both improvement and pleasurable excitement from their well-filled pages, we, too, rejoice in a feast which many would dislike, and feel inclined to pity any member of our profession who does not know the pleasure and advantage of even a single medical journal. Dull and stationary must his life be, and feeble the impulses of that physician, who, in the present age, can content himself to live in profound ignorance of the progress and improvement, everywhere making rapid strides, in his profession. That which was, yesterday, the crowning foam on the very front wave of scientific advancement, is often, to-day, found far behind in the career of improvement—so rapidly do other and stronger waves rush on, to overwhelm or surpass it. There is but little that is stationary in the present epoch, and still less in the science of medicine. "Progress" and "change" seem stamped on every page of medical literature, and the books themselves appear to us but the shifting scenes of an ever-changing, ever-deepening drama.

Let us take any one department of medical knowledge; let us buy the best, or perhaps all the books written upon it; devote months, or even years, to its study in these books, and ere we have waded through the heavy volume a new edition informs us—and most truly—that the advancement of the age demands a complete revision or reconstruction of this entire branch of knowledge. We are bewildered, we are discouraged; we almost sacrilegiously wish we could clog the wheels of a progress, which thus mocks and disheartens, which depreciates the value of our hard-earned knowledge, and writes "passing away" upon all our attainments, even when they have scarcely come fully into our possession.

Do we ask, where our author obtains all the additional matter for his new edition—from other books? This cannot be: none others have been published. Has he made farther investigations? No! he has not had time, by his own single-handed efforts, thus to double the size of his records. Who, then, has done the work in so short a time, and through what channel has it come to him? A little reflection will soon satisfy us on both these points: the whole world may have been stimulated, at once, to engage in and complete the work, and the entire results of their united labors have found a place of record, and a medium of publication, in the *medical journals of the day*.

Books, then, can only give the *results* of scientific investigation, for they are of slow and laborious preparation, and tardy in coming into our hands; but the journals supply us immediately and constantly,

and faithfully, with the *processes* by which these results have been accomplished. They are the archives in which all the treasures of medical lore are first laid up, and they are the storehouses whence this knowledge is transferred, to make up the more complete and systematic science recorded in books. Without medical journals, then, we can gain medical knowledge, only when it has become comparatively stale—its freshness has, in most cases, been there exhaled. Medical journals are to medical books what newspapers are to works of human history, and to works of political economy—they each have their own necessary use and function in supplying the sum total of our knowledge. As the politician, or the man of business, who neglects the record of passing events, found in the current history supplied by daily journals, would necessarily fail to battle successfully in the arena of life—so the practitioner of medicine, who neglects the information and instructive precepts of the medical journals, soon finds himself far in the rear in many important departments, however diligently he may read, even the latest works.

Of the value of medical journals we are, at present, unwilling to say more; our wonder is, not that so many are supported, but that each member of the profession does not subscribe for and read, not only one, but at least two, viz., 1st, one monthly journal, to supply him with information for the daily exigencies and necessities of practice; and 2ndly, one quarterly or bi-monthly review, to furnish information of a more general character, to direct his reading, and to save the necessity of much laborious book-reading, by the comprehensive synopses of medical works which they present. Books now exist in such profusion, that the task is, not so much to find something to read, but rather to know what works we can safely exclude. The Reviews supply this important information, and well deserve the attention of every one who would advantageously engage in the pursuit of medical knowledge.—*Southern Med. and Surg. Journ.*

An Iron Rod pushed through the Abdomen. Recovery.

BUFFALO, NOVEMBER 29, 1858

DEAR DOCTOR:

The following account of a penetrating wound of the belly, and recovery, was given me by Mr. A. Knapp, a medical student, and I have sent it to you for publication, as being well worthy of a record.

Yours truly, FRANK H. HAMILTON.

In February, 1845, a young man, aged about twenty-five, saddle and harness maker by trade, being at work on the first floor, got upon the shop table for the purpose of conversing (through a trap door) with a shoemaker in the room directly overhead; the latter, through sport, motioned to throw a last at the saddler's head, who, in order to avoid the supposed blow, had to flex his body very considerably, as his head and shoulders were above the second floor; by so doing

he lost his balance, and came down from the table in a vertical position, encountering the iron rod used for filling collars, which was four and a half feet in length, three-eighths of an inch at the point, slightly flattened and lunated, and some five-eighths at the base, and exceedingly rough without, being newly made by the common smith; the rod passed into the abdomen four inches below the umbilicus, one inch from the linea alba, on the right side, and came out upon the back, on the same side, about opposite the last dorsal vertebra, two inches from the mesian line; he instantly called the shoemaker, but pulled out the rod himself before the other got down stairs, walked across the street to his boarding-house, and a surgeon was instantly called, who examined the wounds, and found two drops of blood upon the lining of the waist-band of his pants, which was also pierced. The surgeon immediately closed the wounds with adhesive plaster, directed a low diet, with an occasional enema.

I saw him on the eighth day from the accident. He was sitting up in bed, playing on the violin, in which manner he had been amusing himself for several days. He had suffered no pain, except a slight stinging sensation when he drew out the rod; and he feels no inconvenience, except from hunger and consequent weakness. Subsequently I saw him at work at his trade, as usual.

This occurred at the Lackawanna Iron Works, in the practice of Dr. Throop, Providence, Luzerne County, Pa.—*Buffalo Med. Journ.*

Death quickly Produced by the Inhalation of Two Drachms of Chloroform, in the First Stage of Natural Labor, in Scotland. By ROBERT LEE, M.D., F.R.S., Obstetric Physician to St. George's Hospital.

During the night of the 10th ult., while attending a lady in labor, a relative of whom was a warm advocate for the use of chloroform, the husband informed me that a fatal case had just occurred in Ayrshire, close to the residence of his brother, and that Mrs. B. had been attended by Dr. Campbell, of Largs. I immediately wrote to Dr. Campbell, and received from him the following most satisfactory and polite answer. A few weeks only have elapsed since it was publicly denied that any case of death from chloroform, during labor, had ever occurred in Scotland:

“LARGS, AYRSHIRE, Oct. 27, 1858.

“DEAR SIR—I had the pleasure of receiving your note of the 23d inst. yesterday morning. I had been in the habit of attending Mrs. — since January, 1850. She lived at Wemyss Bay, a distance of upwards of six miles from Largs. Mrs. — was then pregnant for the first time. During the whole of February she had repeated attacks of hæmorrhage from placenta prævia. On the 2d of March labor came on, accompanied with hæmorrhage, and as soon as the os was sufficiently dilated I put her under chloroform, and delivered her

by turning. This was most successfully performed so far as the patient was concerned, but the baby was still-born. Since that period she has been six times pregnant, and she had chloroform at each of her confinements; at least I am told so, for at two of these labors I did not arrive in time to witness delivery.

"It is not my practice to give chloroform in natural, easy labors. I think it justifiable only in cases of unusual suffering, or where painful manual assistance is necessary: but Mrs. ——— having experienced the comfort of exemption from pain, and no unpleasant result from the use of it, insisted on having chloroform, and her husband would give it. When I was present I took care that it was sparingly and cautiously given, and, as it happened, always with a satisfactory result.

"On the occasion of her last and fatal labor I understood I was to be called as usual; but, for some reason not very satisfactorily explained, I was not sent for. I had made a friendly call for her on the 15th September, and found her pretty well, and in good spirits. Her time was then up; and her nurse, who is a midwife of considerable experience, had been with her from the 4th. On the morning of the 20th I had occasion to go to Wemyss Bay to visit a patient, and I landed at the pier at ten minutes past eight A. M. I was met by a servant of Mrs. ———, who told me that she was alarmingly ill, and begged me to go to her without delay. I went directly, *and you may guess my horror when I found her stretched lifeless on the bed!* She had been dead about ten minutes: I spent about half an hour in fruitless attempts at reanimation. I was told that she had begun to complain at two o'clock, and had been moving about, and very cheerful, all the morning. About twenty minutes to eight expulsive pains came on, when she called for chloroform; on giving it, probably for the fourth time, *she threw herself violently back, gave a gasp or two; a slight gurgle was heard in her throat, and respiration and the pulse instantly ceased.*

"The head was resting on the perineum. If I had had forceps at hand I might have brought away the child easily; but, as a matter of course, the cry was, 'can nothing be done to save the mother?' and after these attempts it was useless to effect delivery. The quantity of chloroform given in all probability did not exceed two drachms. The bottle from which it was taken could not have held more than an additional half ounce, and it was not full when Mr. ——— began to administer it.

"I applied for a post-mortem examination, but it was declined.

"Mrs. B. was a tall, thin person, who always during the married life was in delicate health. I was not acquainted with her before her marriage. She suffered from indigestion, and was unable to take any considerable amount of exercise; nor could she nurse any of her children. In July last she had a feverish attack, and a decided threatening of premature labor, accompanied with some sanguineous discharge, and from that time her pulse was always unnaturally full and frequent.

"If I do not ask too great a favor, it would oblige me if you would favor me with any remarks or suggestions which occur to you relative

to this distressing case, and also your opinion on the propriety of using chloroform in the practice of midwifery.

I am, &c.

JOHN CAMPBELL.

"P. S.—The chloroform was given on a common muslin handkerchief.—J. C."—*Med. Times and Gazette*.

Death quickly Produced without the Inhalation of Chloroform, in the First Stage of Natural Labor. By JAMES H. AVELING, M.D., M.R.C.S.L., Honorary Member of the Obstetric Societies of Dublin and Edinburgh.

Having heard that an old patient of mine had died suddenly during labor, at Charleton Brook, in the parish of Ecclesfield, where I was in practice three years ago, I this morning drove over and learned the following particulars:

"My name is Mary K——: I was in the room at the death of Mrs. Ann G——. She sent for me about five o'clock in the evening, and told me she had felt 'crotchety' all day. She was at her full time. I thought the pains sufficiently bad to advise her to send for her doctor. The surgeon came, and said it would not be over yet, and went away to see another patient. He returned between six and seven, and said she was still lingering. The pains seemed very severe, and Mrs. G. was very restless; sometimes she was on the bed, then on the chair, and then on her knees on the floor. She complained now and then of difficulty of breathing, and made a noise like 'croup.' She also felt faint, and had some gruel and brandy. About two o'clock in the morning the surgeon and husband were suddenly summoned up stairs, and the latter had only time to put his arm round Mrs. G., who was upon the floor, to support her, when 'she shot out her legs,' and fell back gasping, and died instantly."

Had I been still living in Ecclesfield, I should have had this patient to attend; and as I am a great advocate for the administration of chloroform in labor, I should in all probability have given it in this case. Had I done so, and death had still occurred, chloroform would have been set down as the cause, and Dr. Lee would have had the opportunity of recording the history of a case in which death was quickly produced by the inhalation of chloroform, etc., in England. Neither in this, nor in the case which took place in Scotland, was any examination of the body made; and how, without this, it was found possible in the latter case to attribute with certainty the cause of death to chloroform, seems rather obscure.

It is not, however, for me here to enter upon what are, or may have been, the causes of sudden death in labor. My only wish is to place the case of Mrs. G. on record just now, because of its similarity to the one communicated by Dr. Lee, and also to allay in the minds of those practitioners, who have taken fright at Dr. Lee's case, any fear they may have in giving chloroform for the future in labor.

I am so convinced, from considerable experience, that women who have taken chloroform during parturition recover so very much better and faster than those who have not, that I should be very sorry to see its administration diminished in frequency, and its beneficial effects unnecessarily curtailed, by a case in which the cause of death has been without due examination attributed to chloroform.

I should have been glad to have given a more professional account of the case of Mrs. G.; but the surgeon who attended her is just now on the Continent, and I have no opportunity of getting information from him.—*Med. Times and Gazette.*

Second Impregnation at the Fourth Month of Utero-Gestation.

Sir—Mrs. S., aged 22, a stont, healthy-looking young woman, commenced labor of her first child on the evening of November 7, the pains continuing at irregular intervals till the 11th, in the afternoon of which day I was called in, and found the pains, though short and ineffectual, occurring at regular intervals of five minutes. Upon inquiry, I ascertained that she had been married two years, and that eighteen months ago she had an abortion at the tenth week, from the effects of which she quickly recovered, regaining her strength in a surprising manner till the commencement of her present conception, since which time she has been in a moderately healthy condition. About four or five months ago she was, according to her own statement, seized with the impression that she was conceiving twins, and had subsequently at various times made mention of the same to her relatives. Finding, on examination, a rigid os uteri, I left her, informing the nurse to send for me when the pains became stronger. At 11 o'clock the same evening I was again summoned to my patient, and, to my utter astonishment, found presenting umbilically, what I supposed to be a premature fœtus, which, by a few further efforts of the uterus, was expelled with a gush of liq. amnii. This I concealed under the bed-clothes, informing my patient and the bystanders that it was merely the passage of a few clots of blood. I now laid my hand on the abdomen, and found the cavity of the uterus still occupied; and examining *per vaginam* I discovered the head of a fœtus pushing before it a tense bag of liq. amnii. The pains gradually increased in strength and efficacy till 2 A. M., when the natural delivery of a mature, full-grown fœtus took place, and shortly after the placenta was expelled. I then directed the all-inquisitive nurse to go down stairs and make the mother a cup of tea, and during her absence I ascertained that the mass first expelled was a fœtus of from four to five months, in a high state of preservation, attached by its cord to a separate placenta, which was intimately blended with that of the mature fœtus; still there was a distinct line of demarcation between the two.

Now the question of superfœtation is one of the unsettled points in the Profession, and for that reason I have thought it advisable to

bring forward the facts of the above case, testifying that superfœtation may occur even at the fourth month of utero-gestation. Can it possibly be argued, in contradiction to this view, by the supporters of the theory of non-superfœtation, that this fœtus presenting no abnormal peculiarities was arrested in its development at the fourth or fifth month, and yet lived the full period of pregnancy?

I am, &c.,

Galgate, by Lancaster.

JAMES PEARSON IRVINE,

Surgeon to the Union of Lancaster.

On Injections in Gonorrhœa. By PROFESSOR SIGMUND.

Professor Sigmund, of Vienna, as the result of his extensive observation in this class of diseases, is decidedly in favor of the employment of injections in the treatment of gonorrhœa. He believes those who have derived no benefit from their use, or who have observed mischievous consequences from them, have, in the great majority of cases, employed them improperly. He has tried injections with balsam of copaiba, and with chloroform, but has given them up as unpractical, and those made with the patient's own urine, while taking balsam of copaiba, were found to be as inert as water. From among a large number of substances tried, he confines himself now almost to sulphate of zinc, acetate of zinc or lead, alum, and tannin; and of these he prefers the sulphate of zinc to all others, because the great majority of patients are cured by it; it acts mildly, neither soiling the linen, nor changing the color of the urine, and it is very cheap.

For injections to succeed they must be used at the proper time, in a suitable dose and manner, and they must be continued sufficiently long. The period for their employment has arrived as soon as the inflammation of the mucous membrane of the urethra has become subdued; but they should not be used as long as there is present considerable swelling, great, or even slight, if continuous, pain, spasms, or frequent calls to pass urine. The dose of the material should be small, as five grains to the ounce of extract of lead, one quarter of a grain of nitrate of silver, one grain of sulphate or acetate of zinc, etc. It is seldom necessary to increase the original dose. The addition of anodynes, as opium, hyoscyamus, etc., has no advantageous effect. We should carefully teach the patient how to use the injection; and a small tin syringe, with a conical tube, is to be preferred. It should hold at least two drachms. The patient should be placed in the upright position, and should pass urine prior to the injection being thrown in. The tube must be so passed into the urethra, that no fluid can flow out between the canal and the tube. The fluid is now to be slowly thrown in, and then the mouth of the urethra is to be kept closed by two fingers, so that nothing can pass out during two or three minutes. Two injections are to be thrown in one after the other, and

they are to be repeated three or four times daily. The injections should not be thrown in just before going to sleep, as they then sometimes give rise to seminal discharges. They must be persevered in for eight or ten days after all traces of diseased secretion have ceased to be visible, even in the morning. The average time required will be from twenty-one to twenty-eight days. Internal means may also if desired be employed, and balsamic medicines in many cases hasten the cure.

Dr. Sigmund rarely has recourse to caustic injections, as the nitrate of silver, sulphate of copper, chloride of zinc, etc., because generally the experiment is dangerous. He limits their use to simple, uncomplicated gleet, which has resisted the usual means, as also to recent gonorrhœa without inflammation occurring in persons who have already employed the treatment with advantage.—*Schmidt's Jahrb*, band xcvi. p. 49.

Dysentery in the Paris Hospitals.

In the autumn of last year dysentery arose as an epidemic in one of the wards of the Lariboisière Hospital, in Paris. It lasted four months. It was brought from without the hospital, and was perpetuated by contagion. It attacked 19 patients, and most generally those who occupied beds in which dysenteric patients had previously lain. Of these 19 nine died; some from intercurrent accidents, hæmorrhage, peritonitis, and the rest from the progress of the disease.

Those who recovered had a long and difficult convalescence, which was continually interrupted by diarrhœa, colic, and tenesmus. Most remedies used were of little service; and none were of any service in the advanced periods of the disease. In no case did ipecacuanha appear of use, nor opiates. Injections of nitrate of silver (0.10 in 100 of water) were followed by some good effects. Astringents were useless, and gave much pain as injections. In the last case which occurred, injections with perchloride of iron were used with markedly good effects.

Lord Monboddos Men.—We have already made acquaintance with the Yem-Yem, or tailed men. A new brochure has appeared on the subject by M. le Baron Aucapitaine. Unfortunately it contains nothing new, and the question remains just where it was, viz., that among a certain number of negroes, perhaps among whole families, an abnormal development of the coccyx, or some supplementary coccygeal pieces, are to be found, but that nothing in their case justifies us in considering them as a peculiar race of men.—*Gaz. Hebdomadaire*.

Cancer and the Microscope.—"It was once thought, and I for a moment thought so myself," M. Velpeau tells us, "that the intimate nature of cancer would be revealed by the microscope. Now-a-days we must admit that such hopes were illusory. By the aid of this precious instrument we have been able to ascertain the presence, in

pathological products, of elements and principles, of whose existence we had previously no idea; and to fix their molecular composition with much greater precision; but the malignity of cancer still remains as profound a mystery, as impenetrable in its cause, in its maternal essence, as heretofore."

EDITORIAL AND MISCELLANEOUS.

—The courses of Lectures at the London Hospitals for the winter session of 1858–9, were opened with introductions varying as to subject and mode of treatment. Introductions are of the same character all over the world. As a general thing, the Professor feels it a bore to prepare them, and the student patiently listens to them in the same spirit. Occasionally, however, an honest, independent thinker is found, who avails himself of the opportunity offered in an introductory, to present striking views of matters of general interest to the profession, or specially valuable to the student. The occasion is suited for the communication of truths in the most impressive way, and he employs it for the purpose. We have been struck with some extracts from an introductory by Mr. Turner, at Guy's Hospital, on the subject of the success of the Quack and the Physician, which we transfer to our pages from those of the *Medical Times*. They will serve as our welcome to the band of young practitioners who are about to be introduced into the ranks of our profession.

"The well-informed and competent practitioner will sometimes have the mortification of seeing the place which he is himself entitled to occupy, filled by a plausible charlatan. The only answer that I can make to this complaint, if it should occur to any one of you—and almost every one has his seasons of discouragement and despondency—is, to remind you that chance has, in reality, no existence; that ignorance and prejudice, impudence and fraud, intrigue and slander, have just that amount of success, and that only which is permitted by the all-wise and all-good Disposer of the Universe; that no one can really injure a man but himself; that, according to the general course of Providence, industry and honorable conduct are attended sooner or later with worldly success; and that if this success is delayed, or if it does not come at all, it is because the postponement or denial of these advantages is better for the individual than their immediate bestowal.

* * * A noble-minded physician is one who, in all that he does, feels himself to be the student of God's works, the adorer of His wisdom, the steward and minister of His benevolence. In dealing with your patients, indeed, you will have to regret at one time the imperfection of your knowledge; at another, the limits of your ability. But the physician under whose care you yourself are, is at once a being of boundless intelligence, and absolute power. * * * Only give yourself up with perfect trust and cheerful obedience to the directions of the truthful and wise Physician, and He will gradually purge you from every distemper, heal every sore, and eventually raise you to the full health and perfection of your being. Only follow Him, and He will guide you safely through life; and when that which is so inappropriately termed "the closing scene" arrives, His smile of love will cast a gleam over the dark passage which separates the dim twilight of earthly existence from the full sunshine of everlasting day."

These are noble thoughts of a Christian spirit, and they harmonize so well with the closing portion of Dr. Frederick Bird's inaugural at Westminster Hospital, that we cannot forego the pleasure of adding them also. "Remember always the words of our great Sydenham, that you must one day give an account to the Supreme Judge of the lives committed to your care, and that whatever skill or knowledge, under Divine blessing, you may acquire, must primarily be given to advance the glory of God and the welfare of mankind; and thus, despite your cares, anxieties and disappointments, your thoughts, like the waters of the sea, when exhaled toward heaven, will lose their bitterness, and sweeten into an amiable humanity until they descend in graceful showers of love and kindness upon our fellow-men."

Too often the professional man is disposed to despond because the quack, at his side, is attracting to his door crowds of the learned and wealthy, while he finds it difficult to meet the ordinary wants of life. Too often those whose education should have taught them that skill is never indicated by impudent assertion, but by thorough knowledge, seek the quack's aid and contribute to that notoriety on which his success in the world depends. Lawyers and clergymen may be found ignorantly aiding and abetting quackery—passing by unnoticed, him whom they would honor as an educated man, and employing the quack whose very want of education may, indeed, provoke sneers and satire from them. This is all discouraging at first sight, but is it peculiar to our profession? In the mere moneyed pursuits of life, does not the bold and daring operator often succeed in obtaining great wealth, while the honest, conscientious business man seems to fail?

The error lies here, in the consideration of great wealth as the only achievement worthy a man's labor. If this be so, then must the glory of a good name be entirely stripped of its lustre, for the friend of the "bears and bulls" of Wall Street can obtain it without being at all anxious about the reputation which may accompany its possession. There is something more than wealth required in any man's case before we can admit that his life has been successful. Ample means are not to be despised—are to be sought after, but not as the *summum bonum*. Life has higher claims, which we must respect, and which are of paramount importance.

The young physician, and the old member of the profession also, who has honestly struggled for years in its ranks, may not estimate their lives as misspent because they have not acquired the wealth and notoriety of the quack. To do their duty—leaving the sequel to a higher power—is the main object of their ambition. This will gather around them more precious indications of success than wealth could furnish. The confidence of families, the love of their fellow-men, and, above all, the inward assurance, that duty has been honestly discharged—are these small things? It behooves us to labor diligently in the legitimate work which the prosecution of the medical profession sets before us. Let no one be disheartened because the impostor seems to succeed; and, above all things, let him make no effort to oppose him—such efforts always contribute to the latter's success. Even in France, where the government aids the profession in exposing the quack, Homœopathy is succeeding, simply because the Homœoquack draws from the very nature of the opposition, arguments which challenge the sympathy of the public. *The Union Médicale* thinks that if the profession should all turn Homœopaths, the public would quickly come to its senses. Opposition of an open character will only advance quackery; but opposition, such as that which arises from a great and dignified setting forth of the real merits of the scientific physician, will eventually result in its destruction, and the success of the medical profession.

L. H. S.

—The excitement attending the two previous meetings of the Academy of Medicine, while the Whitney case was being discussed, having subsided, the benches of the Academy, at its last sitting in February, were in a great measure unoccupied. The feature of the evening was the reading of a paper by DR. J. P. BATCHELDER on *Compressed Sponge*. The paper was a lengthy one, and only a part of it was read.

The use of compressed sponge was traced by the author back

to the time of Celsus, who recommended it as an application for staunching the flow of blood. Bloomfield, in his work on Surgery, published in 1763, recommends it for the same purpose.

Dr. Batchelder exhibited to the Academy several specimens of sponge prepared by him for the various operations in which it is of use, and explained the method of their preparation. The sponge selected for this purpose should be of the best quality of fine live sponge, perfectly cleansed and freed from all extraneous bodies, as pieces of stone, shells, &c. The forms usually adopted by surgeons were then described. 1. That of the tent. He ignored entirely the old way of preparing sponge-tents, and taught that they should be carefully manufactured by winding them with a thread or fine cord when saturated by either water or a solution of gum arabic, according to the particular use which was to be made of them; that they should, when designed for certain purposes, be transfixcd by a strong thread passed from base to apex and back, for the purpose of enabling the practitioner or patient to withdraw them at pleasure.

2. In the flattened form. For the preparation of this form he uses the common letter copying press; but two pieces of board between which the sponge can be placed, and a sufficient weight of any kind, will answer the same purpose. The pieces of sponge should be made quite dry, for without this precaution they would not be perfectly compressed. This form of compressed sponge was adapted to the removal of morbid growths upon the principle of pressure, which pressure, by the manner he used the article, was analogous to that produced by tumors, aneurism for example, by which the densest structures of the body, as bones and cartilages, were not unfrequently removed.

He remarked that this agent, pressure, had often been resorted to by surgeons, for the purpose of exterminating abnormal growths and malignant tumors, but with only partial success, for the want of an appropriate medium, which he thought was supplied by the compressed sponge. His first experiments with compressed sponge for the removal of morbid enlargements, commenced with treatment of mammary abscess and enlargements of the mammary glands, such as often followed chronic abscesses of those parts.

He reverted to the use of sponge tents for the dilatation of sinuses, especially when connected with diseased bones, for dilating the female urethra, cervix uteri, strictures of the urethra and rectum, for enlarging the meatus auditorius externus, and for the cure of fistula in ano.

He next spoke of the successful treatment of caries and other

affections of the bones, several cases of which, as enlargement of the bones, nodes, &c., were related by way of illustration and in proof.

The treatment of scirrhus and other malignant tumors by means of compressed sponge was discussed at some length. Cases were related in which the result had been most successful, and the doctrine upon which its agency depended was explained, and its mode of application pointed out.

The remainder of this paper was deferred to the next sitting of the Academy.

— The fifty-second annual meeting of the New York State Medical Society convened in Albany February 1. The attendance was quite large, one hundred and six delegates being present, representing thirty-seven counties. The Society was presided over by the President, Dr. Thomas C. Brinsmade, of Troy, who delivered the annual address Wednesday evening, February 2, in the Assembly Chamber of the Capitol. The subject of his address was "The Advantages arising from Medical Association."

Several important papers were presented and read during the three days that the Society continued in session. As they will appear in the published transactions of the Society, we here give the titles only of these papers, with the authors' names.

"The Commandment of Knowledge in relation to Medical Doctrines and Methods," by Dr. Thomas McCall, of Utica. "The Treatment of Ulcers," by Dr. E. H. Parker, of Dutchess Co. "Partial Dislocations, Consecutive and Muscular Affections of the Shoulder Joint," by Dr. Alfred Mercer, presented as read before the Onondaga Co. Medical Society. "The Treatment of Fractures of the Femur," by Dr. John Swinburne, of Albany. "On Congenital Fissure of the Soft Palate," by Dr. Seth Shove, of Westchester Co. On "Displacement of the Heart," by Prof. Alden March, of Albany. On "Cerebro-Spinal Meningitis," by Dr. Saunders, of Madison Co. "A Dissertation upon the Influence of Vegetation upon Animal Life and Health," communicated by the Herkimer County Medical Society. A paper on "Pneumonia, Bilious and Typhoid," by Dr. John D. Watkins, presented as read before the Sullivan County Medical Society. A paper on "Shortening in Fractures of the Neck of the Femur," by Dr. F. H. Hamilton, of Buffalo. An Address on the "Registration of Diseases," by Dr. W. C. Rogers, of Green Island. A paper on "Diphtherite, or the Sore-Throat Disease, so prevalent in Albany," by Dr. S. D. Willard, of Albany. "A Report on Inversion of the Uterus," by Dr. J. V. P. Quackenbush, of Albany. A paper on "Facial Paraly-

sis," by Dr. Bacon; one on "The Hypophosphites," by Dr. Howard Townsend, of Albany; one on "Hydrops Sacci Lachrymalis," by Dr. John Ball, of Brooklyn; on the "Diseases of Saratoga Co.," by Dr. James Lee, of Saratoga Co.; on "Rupture of the Cul-de-Sac of the Colon," by Dr. Horace Willard, of Albany Co.; "Statistics of 753 Obstetrical Cases," by Dr. N. C. Husted, of New York; a paper on "The Death-Rate in the State of New York, according to the last Census," by Dr. Stephen Smith, of New York; a paper on the "Vital Statistics of the City of Brooklyn."

Besides these, several biographical sketches of deceased members of the Society were read. Dr. Barker, of New York, made an oral report on Obstetrics, and Dr. Wynne made an oral statement on the subject of "Mortality in the United States, and the Mortality on account of Intemperance."

The officers for the next year elected were as follows:

President—Dr. B. Fordyce Barker, of New York City.

Vice President—Dr. Daniel T. Jones, Onondaga.

Secretary—Dr. S. D. Willard, Albany.

Treasurer—Dr. J. V. P. Quackenbush, Albany.

—The following remarks, on the *Contrast between Modern and Ancient Medicine*, have been handed us by DR. A. K. GARDNER, of this city, which we cheerfully find a place for in this part of our journal, as they accord so well with our own views upon the great advance which chemistry and pharmacy have made—the one in resolving the active principles of plants, and the other in presenting them to us for use in the most agreeable form.

By means of the concentrated medicines, the alkaloids, the resins, the fluid extracts, &c., we are approaching a most important desideratum in the art of prescribing, which permits us to administer in small doses, with a more certain effect, the bulky and offensive drugs of the last century. Dr. Gardner writes as follows:

"When noting the progress of medicine, we cannot fail to contrast its present with its past condition in its medicaments. In no part of its domain has greater progress been made than in this. Chemistry has brought its certainties to this branch, and we no longer ignorantly give and take strange and repulsive doses. When Hippocrates gave the dung of birds, the urine of animals, the barks of strange trees, and the leaves and roots of herbs, slimy seaweed and burnt bones, he did so without knowing what he gave nor why he did it. Modern science extracts the resins and alkaloids from vegetable matters, calls them morphia or quinine, or podyphilline, so that in-

stead of giving a quart of nauseous tea, we can now give all the virtues in a minute pill. From the slimy seaweed, the ashes of which in repulsive quantities once were prescribed for scrofula, chemistry has extracted the iodine, and a pill contains the essence of a pound of ashes. Again, the excrements of birds, so common in prescriptions of ancient physicians, derived their benefit from the phosphates they contained. Modern doctors do not disgust their patients by these repulsive names, but they give phosphates and hyper-phosphates extracted from guano, the deposits of sea-birds, brought from Jarvis' Island, which contains 80 per cent. Instead of the bones of animals, birds or reptiles, their constituents, phosphates, lime, &c., are given in known quantities, and no cabalistic virtues are imagined to depend upon the killing of the animal at any particular quarter of the moon. The disgusting draught of urine, (which, as a domestic remedy in combination with molasses, has been perpetuated even to the present generation, showing that the credulity of the enlightened 19th century is identical with that of the Ptolemy's and Cæsars,) no longer retains a place in the materia medica. Within a half decade, however, the principal constituent, urea, is extracted chemically, and given by the most enlightened of the medical sages of Europe, as a remedy for dropsy, &c. Inspissated bile from bullocks is given for affections of the liver. The concentrated gastric juice of sheep pepsine has been proved by personal experience to possess most efficient qualities as an anti-dyspeptic, bringing strength to the debilitated stomach, and adding that value to life which the real dyspeptic thinks has forever faded away.

"Thus far, we are enabled to give satisfactory reasons based upon scientific grounds for this treatment. But when we look still farther to peculiar medicaments recommended by the homœopathic fraternity, we can find less convincing reasons, although acknowledging it to be the legitimate carrying out of their great doctrine, *similia similibus curantur*. Any theory, however, we are willing to confess, would not succeed in getting down our throats doses, however attenuated, of scabs of small-pox as a cure of variola, or venereal virus as a remedy for syphilis.

"For a long time some means have been sought to make medicines more palatable. We have shown that no long draughts of bitter infusions are necessarily taken, but that we can now find their principles either in concentrated extracts, or better still, deprived of their inert materials in alkaloids. Not unfrequently, however, these chemicals have only succeeded in diminishing the bulk, while the acid taste still

remains, either the same, or sometimes more repulsive than at first. Some persons, too, find it disagreeable or impossible to swallow a pill; after rolling it around the mouth the taste is offended by the dissolved mass. Here, too, art has stepped in, and over each pill places a coating of gelatine or sugar, which, while it entirely prevents all smell or taste of the drug being perceived, even after a prolonged stay in the mouth, at the same time protects it from air and moisture, so that it remains uninjured for an unlimited period. The ordinary officinal pills in use are now first introduced into this country, being made and sugar-coated at the immense establishment of Garnier, Lamoureux & Co., in Paris, where labor and capital are cheap enough to be advantageously employed in their manufacture.

“But there are some medicines of great importance, and unfortunately of great bulk and unmistakably bad taste, which have as yet resisted all attempts to eliminate their curative qualities. Cod-liver oil, which is prescribed in very considerable quantities, and three or four times a day for many months, or even years, soon becomes so repulsive to many that they are forced to renounce its use, although quite certain that a speedy death threatens as a result of such discontinuance. All attempts to disguise the smell and taste by aromatics have failed, till lately M. Quereux, a French chemist, of New York, has discovered a method of jellifying it by the addition of gelatine, so that now the prescribed quantity may not only be taken without disgust, but even, by the addition of flavors, made to be a matter of actual pleasure. We hope for similar successes in jellifying castor oil and other nauseous medicaments.

“We have thus alluded to the progress of medicine in but one direction, and even in that we have neglected the great field for a bye-path. Of the discoveries in the virtues of long known plants, minerals, and chemicals; of the importance of chloroform and other anæsthetics, we have barely alluded. Our aim has been merely to speak of the popular side of the subject, and of that merely as a matter of taste.”

141 East 13th Street.

— Mr. Groux, who offers in his person that singular conformation of the thoracic walls, congenital fissure of the sternum, recently gave a physiological *séance* in the Smithsonian Institution at Washington, and is now journeying South, getting the opinions of the physiologists and savans of our Southern cities upon the phenomena his case presents. While in Boston he was submitted to a series of most brilliant and interesting experiments, devised by Dr. J. B. Upham, for the purpose of settling beyond dispute the question of synchronism or n-

synchronism of the various motions of the heart and great vessels. For this purpose Dr. Upham made use of electro-magnetism, and, by the delicate instruments invented for the purpose, the minutest interval of time was recorded, and the difference between the time of pulsation of the tumor to be seen in the middle portion of the fissure, the apex of the heart, aorta, and the radial artery was distinctly marked.

An abstract of these experiments has been presented to the Boston Society for Medical Improvement, and published in the *Boston Medical Journal*. A fuller and more minute statement is promised.

The application of electro-magnetism, for the purpose of diagnosis in diseases of the heart, is suggested by Dr. Upham, and while it is novel it is at the same time a suggestion full of promise.

We have heretofore given a very full history of the case of Mr. Groux, with the various opinions upon his case as found in his album. At our earliest convenience we shall add to these the results of Dr. Upham's experiments.

— Two new medical journals have appeared with the new year, both published in Louisville, Kentucky, and both published semi-monthly. *The Louisville Medical Gazette* is edited by Dr. L. J. FRAZEE, and the *Semi-Monthly Medical News* by Drs. S. M. BEMISS and J. W. BENSON, Professors in the University of Louisville. We welcome them both, and shall be pleased to exchange.

— Dr. A Mercer Adam continues his sketches of the Medical Institutions and the Medical Men of the Continent in the January number of the *Edinburgh Medical Journal*. We extract the following account of the University of Würzburg and its Professors. Our October number of the *Edinburgh Journal* has been mislaid, or we should give the remainder of the extract upon the University of Bonn and its Professors, including a sketch of Prof. Kilian, which we were obliged to omit for want of space in our January issue.

"In Bavaria there are three universities, two of which, Munich and Würzburg, are Roman Catholic, and the third, at Erlangen, is Protestant. The University at Würzburg was founded in 1502. The collegiate buildings here are large, gloomy, and very uninteresting—containing numerous class-rooms, a good library, and a large museum, which is particularly distinguished for its collection of specimens of natural history. When we pass out from its dull echoing courts, we soon emerge into a broad cheerful road, where the footpaths are lined by rows of green linden trees. This pleasant promenade, called the *Graben*, passes along the front of the *Julius-Spital*, or Julius Hospital, a magnificent building of great length, of vast extent, and

most imposing appearance. This, which is one of the largest and best managed of German hospitals, was founded in 1572 by one of the Bishops of Würzburg, Julius Echter von Mespelbrunn, as an asylum for the poor, the infirm and the sick. A bronze statue of this venerable prelate—a man of large heart and cultivated mind—by Schwantaler, of Munich, stands under the lindens of the Graben, opposite the main doorway of the hospital which he endowed. The chief archway of the building leads us into a spacious quadrangle, with two handsome fountains in its centre; and the cool plashing of the falling waters seems to sing a soothing lullaby, fit to bring sleep to the eyes of the sick, tossing on beds of pain and weariness. The hospital contains about 400 beds in all the different departments; and medical, surgical, and lunatic patients are all treated under its roof. The wards are large, well ventilated, and scrupulously clean; and their walls are adorned by crucifixes, and pictures of saints and martyrs. This hospital is the head-quarters of the Würzburg Medical School, concerning which a few remarks are necessary.

“Würzburg has for many years held a very high position among the German schools of medicine; and the number of its students still continues on the increase. During the past session, about 350 of the the 750 enrolled *alumni* of the University were medical students—and this, be it remembered, is a large number for Germany, where the profession is very much overstocked, and for times of peace, when there is no great demand for surgeons for the military service. Würzburg owes its popularity to the well-deserved prestige of many of its professors and teachers—such men as Virchow, Scanzoni, Bamberger, Kölliker, Linhart, Heinrich, Müller, Leydig, etc. Würzburg has always been remarkable for the harmonious unity of aim, and the uninterrupted friendly relations of its professors; and its great popularity and efficiency as a medical school are probably, in no small degree, due to these fortunate circumstances. Happy indeed the university that is in such a case! Surely the most amicable feelings and the most catholic sympathies should prevail, to the exclusion of petty jealousies, among men who have all taken that solemn oath which Science imposes on the high-priests of her mysteries, and who are all consecrated to the same noble mission.

“Würzburg probably first came into note on account of the distinction of its microscopists, and the originality of the views promulgated by the advanced school of pathology which was founded there by Virchow. When the microscope was first introduced in medicine, it was looked upon with suspicion and distrust; and we know that no less a man than the great physiologist, Johann Müller, could not, at first, be convinced that there existed any necessity for physicians to acquire the ability of making microscopical examinations for themselves.* But ere long Müller changed his views, and, by his earnest labors, gave a powerful stimulus to microscopical investigations both in physiology and pathology. Following the example of

* *Vide* Johann Müller. An Eloge by Prof. Virchow. Translated and edited by A. Mercer Adam, M.D. Edinburgh: Sutherland & Knox. 1859.

patient industry which had been set by Ehrenberg, Müller, Purkinje, Schwann, Schleiden, and others, the professors and teachers at Würzburg espoused the cause of histology; and the labors of Kölliker, Leydig, Heinrich, Müller, and Virchow firmly established the microscope in the confidence of the professional public. And, even to this day—in spite of the many revolutions and capricious alternations of professional opinions all over Europe; in spite of the skepticism of ‘practical men’ of the Velpeau school, and the sneers of the purely routine practitioners—the use of the microscope, as a valuable aid to the physician, is decidedly becoming more and more common alike in Germany and in Great Britain. The microscope may now be said to have fairly stood the test of Time, which ‘tries all;’ and it would long ago have been consigned to oblivion had it been merely a fashionable scientific toy, of no practical utility. To Germany belongs unquestionably the honor, not only of having developed histology into a distinct science, out of a mass of isolated facts and unconnected observations, but also of having been the first to institute classes for teaching histology systematically in her schools of medicine. In both of these respects, France and Holland followed but slowly in her wake. In this country systematic courses of lectures on histology were first commenced in the University of Edinburgh; for so early as the session of 1841–2—immediately after the appearance of the remarkable researches of Schwann and Schleiden—Professor Hughes Bennett began to teach this branch of medical study to his pupils, and to instruct them in the practical use of the microscope in medicine.

“The reader must not imagine, however, that Würzburg is famous only for the opportunities it affords for the cultivation of the higher branches of scientific medicine. It is also equally distinguished for the excellence of its clinical instruction, both in practical medicine, surgery, and midwifery; and for the great facilities which the students possess for observation and study in the wards of its hospitals. Scanzoni, as a teacher of Midwifery; Bamberger, of Clinical Medicine, and Linhart, of Clinical Surgery—better men than these are not to be found in any Continental University. So let us now enter into a few details regarding them, and some of the other notabilities of Würzburg.

“No name is better known in medical literature than that of Albert Kölliker, the Professor of Anatomy and Physiology in Würzburg. His *Manual of Human Histology* is the standard authority on the subject; and the Sydenham Society conferred a great boon on British physicians when it made them acquainted with this book, by means of the admirable translation and most valuable editorial notes of Messrs. Busk and Huxley. This work, having now securely taken its place as one of our standard medical classics, is far beyond any praise or criticism of mine.

“Mr. Addison says that ‘a reader seldom peruses a book with pleasure, till he knows whether the writer of it be a black or a fair man, of a mild or choleric disposition, married or a bachelor, with other particulars of the like nature that conduce very much to the

right understanding of an author.* I have endeavored, in preceding 'Notes,' to gratify this excusable curiosity, and have occasionally offered rough pen-and-ink sketches of the celebrated medical men of the Continent; and it is my intention still to give the reader such information as is likely to interest him about the personal characteristics of the German physicians. But of Kölliker it is almost unnecessary that I should offer any such sketch, as his face and form are quite familiar to the profession in Edinburgh, London, and elsewhere in this country. A man of from forty to forty-five, with long glossy hair—once raven black, but now beginning to be of a steel-gray hue; with open intelligent countenance, delicate features, thin lips, and a kindly dark eye; with a spare and somewhat wiry form, and a firm elastic step; a man, in whose face you can trace the evidences of much hard work gone through; but from whom—vigorous as he is in the prime of manhood—the scientific world has reason still to expect great things.

"I met with a very kind reception from Professor Kölliker, who showed me all that was noteworthy in his department. His classrooms, dissecting-rooms, etc., etc., are in a large and handsome building, situated immediately behind the Julius Spital, in an open space which is cultivated as a small botanic garden. Here are also the lecture-rooms, laboratories, etc., of Professor Scherer, the teacher of chemistry. These occupy the ground-floor of the building, and the upper story is devoted to the anatomico-pathological museum, the histological collection, and microscopical work-rooms. The Würzburg museum is large, and contains many rare and unique preparations—both wet and dry—in human and comparative anatomy. It is particularly rich in pathological specimens—thanks to the contributions of Heusinger, Hesselbach, Brunninghausen, and others, but especially to the zeal and industry of Virchow. In it I saw the beautiful series of preparations made by the late Professor Bernard Heine, illustrative of his celebrated experiments on the formation of new bone from periosteum. Here we see the femur of a dog, formed entirely of new bone, which was developed from periosteum eleven months after the extirpation of the original bone; and there is a rib similarly developed seven months after the operation. Heine cut away all the bones of the right fore-leg of a dog, leaving the periosteum behind. Fourteen months afterwards a new scapula, with a perfect articular surface, was formed, and similar development of new bone took place, a few months after the resection, at the site of all the other bones. The beautiful dried preparations of these curious results are preserved with great care, and are shown with a justifiable pride. I heard that the French Government had offered to purchase the series for a Parisian museum, but that the Würzburg Faculty had properly declined to part with them. There is a large collection of urinary calculi here, among which is one with a musket-bullet for its nucleus. In osteology there is a good display of rachitic skeletons, deformed pelves, and interesting hydrocephalic and abnormal skulls.

* *Spectator*, Vol. I., No. 1.

Among the latter is a curious case of atrophy of several of the cranial and facial bones, as a result of a peculiar hypertrophic skin-disease, called 'leontasis,' in which a mass of long warthy growths fringed the head and face like the mane of a lion. The most interesting crania, however, are those collected by Virchow to illustrate the varieties of race, and his theories about the development of the skull and the peculiarities of the facial angle in Cretins—most of which have been figured by him in his various monographs. The microscopical preparations here are worthy of the most careful study, and among them are some beautiful injections.

"I congratulated Kölliker on the success of his important experiments on the physiological action of poisons. 'I do not pretend to be a toxicologist,' said he, 'for your great Christison is the only man in Europe who is truly one. But I have sought to render service to practical medicine, by showing how certain poisons really act on the organism.' And he has not failed in his high aim; for the results of his carefully performed experiments throw much light on an obscure subject. He has shown the effect of such poisons as urari, upas, strichnia, opium, veratria, etc., on the muscles, the heart, and the nervous system. He found that the deadly arrow-poison of the American Indians, called urari,* (also woorara and curare,) causes death by paralyzing the nerves of respiration; and it destroys the excitability alike of the motor and sympathetic, without affecting the functions of the sensory nerves; but that it does not destroy muscular irritability, or arrest the action of the heart. Conia acts in a somewhat similar manner, leaving the excitability of the muscles unimpaired, while it causes paralysis of the nerves which penetrate them. Kölliker further found that strichnia has no influence, through the blood, on the motor nerves; nor does it alter the condition of the sensory nerves, as is proved by his having poisoned frogs with the acetate, after previously dividing the ischiatic nerve of one limb. 'But strichnia,' says he, 'causes paralysis of the motor nerves supplying voluntary muscles, as a result of their over-excitement during the tetanus induced—just as too strong currents of electricity produce loss of power in the motor nerves, which they convulse.' The tetanic spasms of tetanus do not affect the heart, although they make its pulsations slower. The tetanus which follows poisoning by strichnia, he believes to be caused either by irritations conveyed to the gray substance of the spinal cord by the sensory nerves, or by certain influences transmitted to it from the brain. He found that opium acts similarly to strichnia, in causing tetanus by its action upon the gray matter, and by inducing paralysis of the motor nerves as a result of their hyper-excitation. His most recent experiments have been made with the upas-tree poison (*Apas Antiaris* vel *Toxicaria*,) and he found that the specific effect of this poison is at once to destroy all excitability of the muscles, and to cause immediate death by paralysis of the heart. He maintains that we have no true 'blood poison'—meaning thereby one which would so

*Kölliker acknowledges having got the poison for experiment from Professor Christison.

change the mutual physiological relations of the elements of the vital fluid as to render its circulation positively injurious; but he holds that all poisons act on the parts which they affect through the medium of the blood. Some poisons he regards as purely muscular, and others as purely nervine, in their elective affinities for specific tissues. The upas-tree poison, and perhaps veratria, are the only true muscular poisons. Nervine poisons, however, are divided by Kölliker into three classes, according to the mode in which they operate on the nerves: 1st, those which act on the gray matter, as strichnia, veratria, and opium; 2d, those which change the nerve-tubes, as urari and conein; and 3d, those which probably act in both ways, as prussic acid, nicotine, and æther. He adds the corollary that there are likely excitant and paralyzing agents in all the three groups.* Such are a few of the results of Kölliker's important physiological experiments in toxicology; and believing them to be comparatively unknown in England, I have stated them at some length. On Kölliker's other recent researches—as, for example, on the absorption of fat by the glands of the alimentary canal, on the existence of a physiological fat-liver in the young of mammalia, and on the functions of the spleen†—I have no space to enlarge. They seem to confirm satisfactorily the opinion now generally entertained of the use of the spleen, viz., that it is a blood-forming organ, which develops colorless corpuscles, and that these blood-cells (at least in young animals) became transformed into red globules, partly in the spleen, partly in the liver, and probably also in the current of the general circulation.

Virchow is no longer a Würzburg professor, having occupied for more than a year the pathological chair in the University of Berlin. His loss has been seriously felt at Würzburg, but his name will always continue to be honorably associated with the history of this medical school, which owes so much to his industry and his genius. Another eminent man, Professor Förster, of Göttingen, who is a great authority in morbid tumors, etc., goes this winter to Würzburg, as Professor of Pathology, exchanging with Professor Otto Beckmann, of this University."

Treatment of Sore Nipples.—M. Anselmier observes, that in employing the nipple shield we should take care that it is neither too large nor too firm, since deglutition becoming difficult when the jaws are wide apart, the child soon becomes tired and refuses to suck. Collodion is of great use in chaps, although the pain it causes at first is complained of. It is, however, most indicated as a preventive when as yet only pain is present and the child sucks forcibly. The gentle compression it exerts upon the nipple limits the turgescence of the organ and the inflammatory process. It is also an excellent application in superficial excoriations, protecting these from the action of the air and the saliva. In deeper chaps it is not of the same use; and al-

* The reader interested in these investigations is referred to Prof. Kölliker's papers in *Virchow's Archives*, vol. x.

† *Verhand. der Phys. Med. Gesellsch. zu Wurzburg*, band vii. Seit. 174.

though other substances, as solutions of nitrate of silver or sublimate, may be beneficially and safely employed, with due precautions, yet they cause great pain, and are opposed by various prejudices. Reserving such means for very obstinate cases, M. Anselmier prefers benzoin reduced to a state of impalpable powder. This is dusted over every part of the chap, and the nipple is then covered with carded cotton. No pain is caused, and cicatrization soon ensues, a shield being used meanwhile.

Another Agent for the Production of Local Anæsthesia.—M. Claisse, a French provincial practitioner states, that for some years past he has been enabled to induce local anæsthesia, allowing of the performance of painless extraction of teeth, opening abscess, and other minor operations. He forms a solution by filling up with sulphuric ether a small bottle which already contains powdered camphor equal to one-third of its capacity. A small sponge attached to a slip of whalebone is dipped into this solution and rubbed for about a minute upon the gum or the part to be incised. In two minutes the anæsthesia passes off.—*Gazette des Hôpitaux*, 1859, No. 2.

The Saliva in Jaundice.—M. Vulpian relates that in several cases of well-marked jaundice, in which expectorated substances were deeply colored with the coloring matter of the bile, the most careful search was unable to detect the slightest trace of this coloring matter in the saliva itself. The fact is of interest in relation to M. C. Bernard, who has observed that in diabetic patients sugar is not found in the saliva itself, though easily detected in the products of the bronchial secretion.—*Gazette Médicale*, No. 2.

Condition of the Cervix Uteri after normal labor.—M. Bouchacourt states as the result of the attentive examination of several women: 1. Even the most simple form of the puerperal state exhibits, among other local lesions, as traumatic inflammation of the cervix, characterized by swelling, heat, pain, redness, exfoliation of a portion of the mucous membrane, and suppuration. 2. From the fourth, and sometimes the second day, the lochiæ contain pus globules. 3. A reparative process takes place subsequently to such exfoliation, the pus diminishing and the epithelial cells increasing in quantity. 4. At the end of a week, the signs of inflammation, though less distinct, still persist. From this time the cervix becomes more regular in form and less voluminous, and closes—the anterior lip of the os remaining longer voluminous than the posterior. 5. By the end of a fortnight cicatrization is not terminated, although fast progressing—to be completed in the third or fourth week. 6. It proceeds from the circumference towards the centre. Traces of ulceration are found after some cases of abortion for two or three months. 7. The intensity of the milk fever has often seemed to be proportionate to the extent and violence of the inflammation of the cervix. 8. There is also frequently inflammation of the vulva and vagina, as well as of the cervix.—*Rev. Méd.* 1858. T. 1, p. 159.

Paris, at the present time, seems to enjoy an extraordinary immunity from fever. In the hospitals, generally, it is extremely difficult to meet with a single case. In the *Hôtel Dieu*, which, from its proximity to the "bureau Central," is usually the first to be supplied with cases of fever, we have not encountered more than half a dozen for the last four months, and the other day we heard one of the physicians state that such a scarcity of typhus had not been known for a series of years. Beds which formerly were occupied by fever patients, are now for the most part filled with rheumatisms and erysipelas of a benign nature. What the cause of this may be we do not presume to say; most probably, however, it may be accounted for by the peculiar condition of the atmosphere, caused by the unusual mildness and humidity of the season.

Tracheotomy in Croup.—The *Paris Société Médicale des Hôpitaux*, after prolonged discussions, in which M. Bouchut largely took part, came to the following resolutions: "1. That the statistics of the mortality of croup presented by M. Bouchut does not possess the value attributed to it by its author. 2. That tracheotomy has rendered, and renders daily, immense services in the treatment of croup—constituting in the present state of science the best means that can be employed when the disease has reached the period of approaching asphyxia. 3. Great danger attends the delaying the performance of the operation until the occurrence of the ultimate phenomena of the disease, and especially anæsthesia, which is not a constant symptom."

Bleeding in Pneumonia.—"In the beginning of this century Dumanin of La Charité hardly ever bled for pneumonia, yet his success was at least equal to that of Corvisart, who bled largely. Laennec thought he had annihilated the mortality of pneumonia, by large doses of tartar emetic, at the very time that Gregory thought that large bleedings could alone cope with so formidable a disease; while Bouillaud, then as now, placed implicit confidence in his *coup-sur-coup* method of bleeding; and Alison taught that, in the treatment of pneumonia, 'uncomplicated and recognised from its commencement, the utmost confidence may be placed in general blood-letting, which should always be large,' etc., at the very time that Skoda taught that the tendency of pneumonia was not to dissolution but to resolution, and that rapid restoration to health was best promoted by withholding those heroic remedies generally prescribed, and amongst them blood-letting. Experience had taught him this, not change of type; but a few years previously he had been a staunch venesectionist: at the time I knew him, most of his colleagues were so still. His nearest neighbor in the hospital bled largely and freely, and was quite satisfied with the results obtained. Brought up in the professional tenets of one so respected and loved as Dr. Alison, I can never forget the horror with which I at first regarded the practice of Skoda, the incredulity with which I listened to his explanations, or my astonishment when extended observation had convinced me of the correctness of his conclusions, the truth of which eleven years of private practice in this country have but tended to confirm."—*Dr. G. Balfour.*

— We propose from time to time, as occasion offers, to present to our readers cuts of new instruments and mechanical appliances of all kinds, which are allied to any of the branches of our profession. We are enabled this month, through the kindness of Dr. E. D. Hudson, to present cuts of the artificial limbs invented by Mr. B. Frank Palmer, showing their external appearance and internal mechanism. The description we copy from a late issue of the *Scientific American*. These limbs have recently been presented to both the Academy of Medicine of this city and the N. Y. State Medical Society, and referred by them to appropriate committees.

“The articulations of knee, ankle, and toes, consist of detached ball-and-socket joints, A B C. The knee and ankle are articulated by means of the steel bolts, E E, combining with plates of steel firmly riveted to the sides of the leg, D D. To these side plates are immovably fastened the steel bolts, E E. The bolts take bearings in solid wood (properly bushed) across the entire diameter of the knee and ankle, being much more reliable and durable than those of the usual construction. All the joints are so constructed that no two pieces of metal move against each other in the entire limb. The contact of all broad surfaces is avoided where motion is required, and thus friction is reduced to the lowest degree possible. These joints often perform many months without need of oil, or other attention—a desideratum fully appreciated by the wearer.

The Tendo Achillis, or heel tendon, F, perfectly imitates the natural one. It is attached to the bridge, G, in the thigh, and passing down on the back side of the knee-bolt, E, is firmly fastened to the heel. It acts through the knee-bolt on a centre, when the weight is on the leg, imparting security and firmness to the knee and ankle joints, thus obviating all necessity for knee-catches. When the knee bends in taking a step, this tendon vibrates from the knee bolt to the back side of the thigh, A, (semi-flexed view) It descends through the leg, so as to allow the foot to rise above all obstructions in flexion, and carries the foot down again, in extension of the leg for the next step, so as to take a firm support on the ball of the foot. Nature-like elasticity is thus attained, and all thumping sounds are avoided. Another tendon, H, of great strength and slight elasticity, arrests the motion of the knee gently, in walking thus preventing all disagreeable sound and jarring sensation, and giving requisite elasticity to the knee.

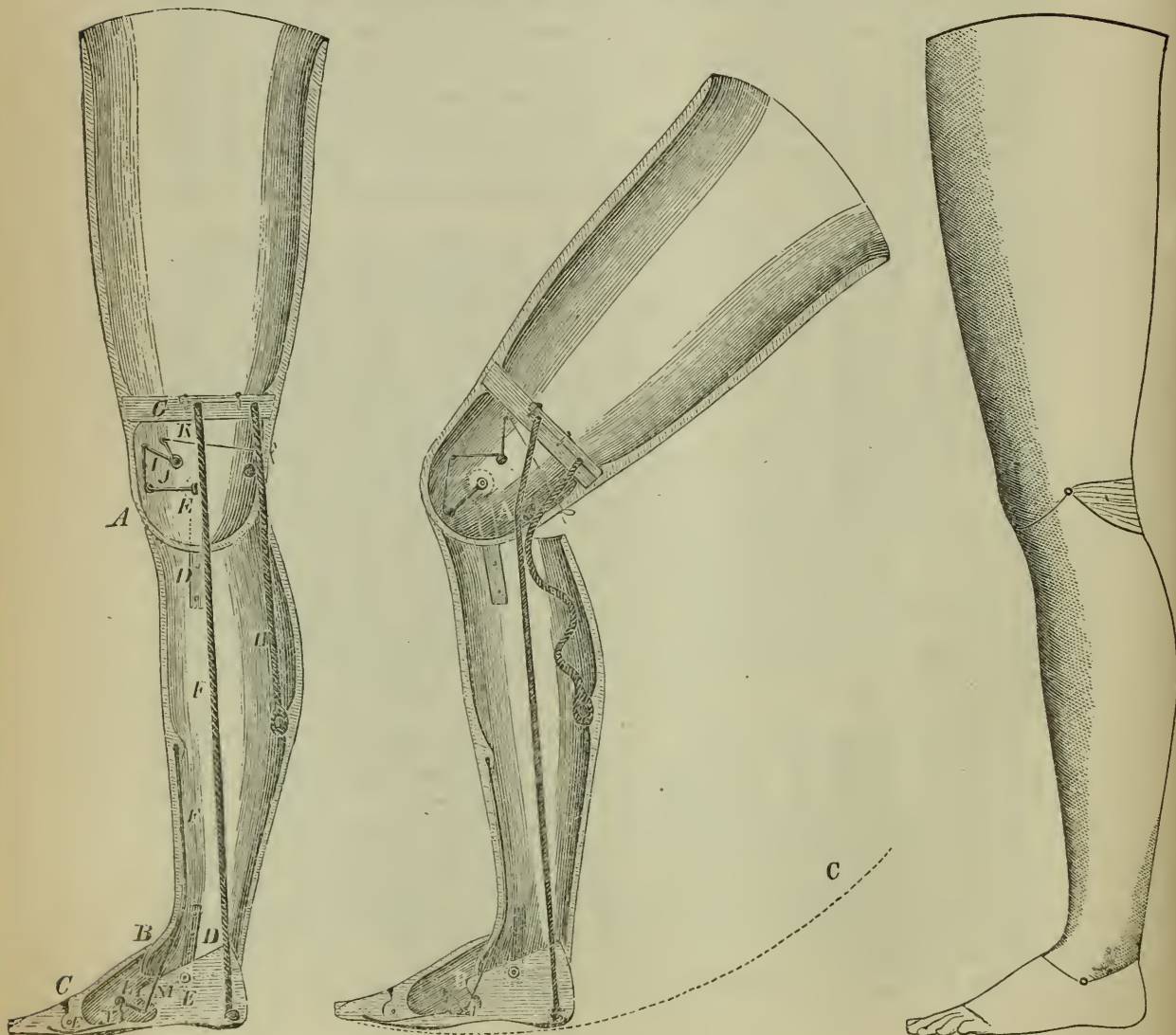
A spring, lever, and tendon, I J K, combining with the knee-bolt, give instant extension to the leg when it has been semi-flexed to take a step, and admit of perfect flexion in sitting.

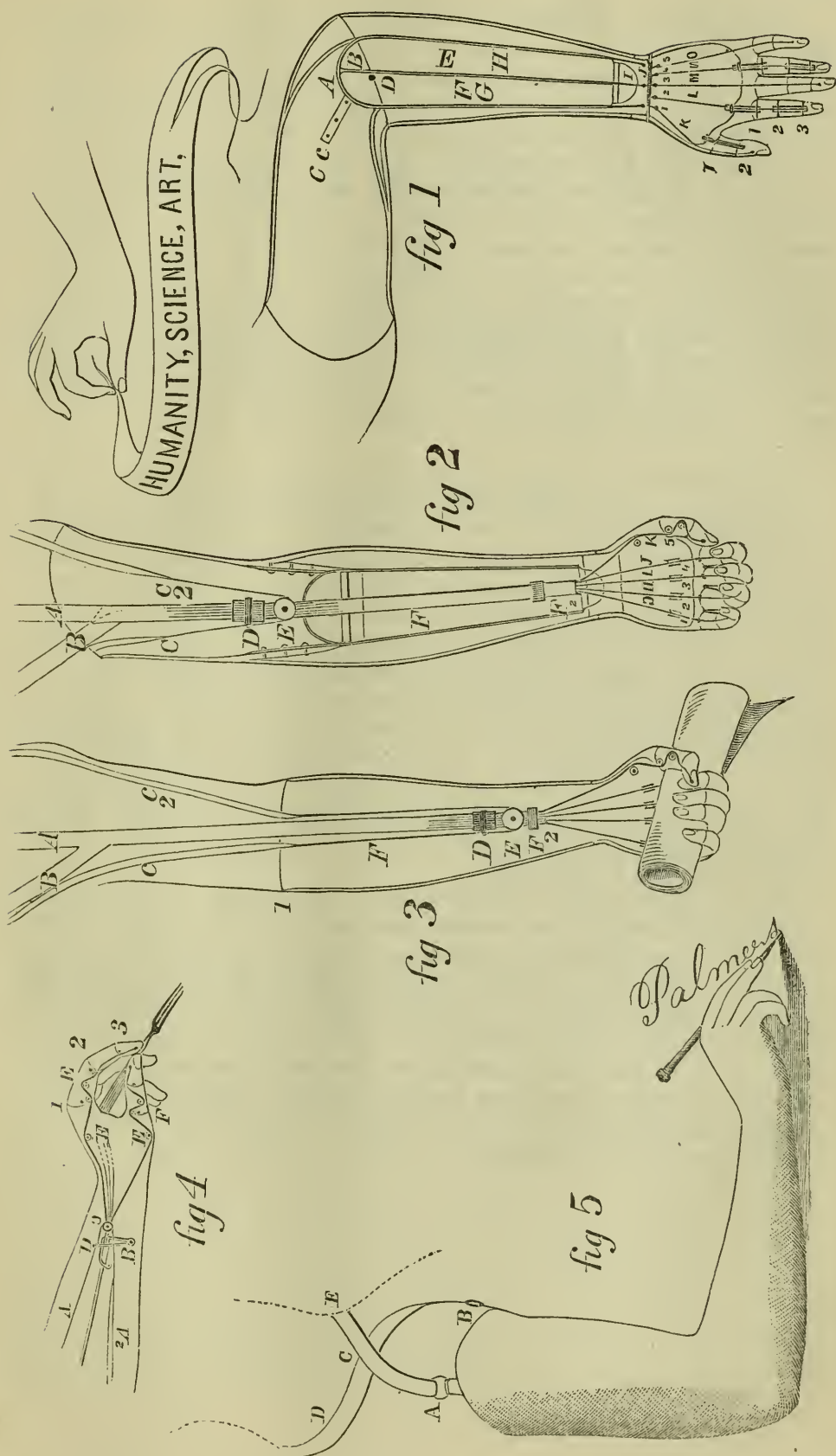
A spring and tendons in the foot, L M N, impart proper and reliable action to the ankle-joint and toes. The sole of the foot is made soft, to insure lightness and elasticity of step. The stump receives no weight on the end, and is well covered and protected, to avoid friction and excoriation.

But the most ingenious piece of mechanism, and one that seems to

us as likely to do greater service for humanity in relieving them from the deprivation of enjoyment and capability to work, which generally follows an accident, is the arm and hand, of which we present full drawings.

Fig. 1 represents an arm to be applied above the elbow. The articulation, A B, is a ball and socket, connected with the steel plates, C C, and turning upon the pinion, D. The functions of the bones in the fore-arm (radius and ulna) are imitated by the conical shaft, E, which terminates in a ball at the elbow and wrist, J J. The wrist is articulated with a ball and socket firmly united by catgut tendons, F G H, tensely drawn over the convexity of the shaft, E, at the elbow. It has every motion of the natural wrist. The hand rotates on the the fore-arm, being susceptible of pronation and supination, or any angle or degree of flexion and extension desirable. The extensor tendons, K L M N O, acting with the springs, 1 2 3 4 5, open the hand. The detached ball and socket joints of the thumb and fingers are indicated by the figures 1 2 and 1 2 3.





The fingers are articulated on steel rods and pinions imitating the bones, as seen in the thumb and the first and third fingers. The exterior is brought to a perfect imitation of the natural arm, (as shown in the outline, or in Fig. 5.) by a soft elastic substance, which rotates around the fore-arm, preserving anatomical symmetry in every position. It is covered with a delicate skin.

Fig. 2 is the same arm extended, with the fingers semi-flexed. The belt, A, attaches the arm to the body. A small belt, C C 2, is connected by a tendon to a clasp and pulley, D E. The great muscle, F, is the continuity of the flexor tendons, G H I J K. These tendons pass sinuously over pulleys or fixed sheaves, 1 2 3 4 5, through the hand, to the end of the fingers and thumb. The principles of the lever and pulley are thus combined, and the maximum power retained at all angles of flexion or extension. A slight motion of the shoulders, with extension of the fore-arm, produces an incredible grasp, as seen in Fig. 3.

An object of any shape, such as a pen, a fork, or an apple, is held with facility. By a slight motion of the shoulders, the belt, A B, causes the great muscle, F, and its tendons, to contract powerfully, closing the hand. A movement easily and naturally made actuates the tendon, C C, and fastens the clasp, D, upon the muscle, so as to retain the grasp in any position or motion of the arm, when in use. This is regarded as invaluable for holding reins in driving, or carrying articles with safety. An easy counter-motion unfastens the clasp, relaxing the flexor muscle and its tendons, and the extensors open the hand. This principle performs most perfectly in an arm applied below the elbow, as in Fig. 3. In this are seen the belt, A B C, the great muscle, F, and its tendons, the clasp and pulley, D E, as in Fig. 2. A fixed eyelet, F 2, clasps the great muscle, F, and thus guides the flexor tendons of the fingers. The line, 1, shows the union of the natural with the artificial arm.

Fig. 4 shows a hand holding a fork. The tendon, A A 2, passes through the clasp, B, and around the pulley, C, to the side of the clasp, D, where it fastens or unfastens the clasp by movements before explained. The joints of the fingers and thumb are flexed upon the fork by powerful tension of the great muscle and its tendons. The sinuosity of the tendons passing over the pulleys or sheaves, E E E, shows the new and useful principle of effectually combining the lever and pulley to gain the utmost power, strength, elasticity, and adaptability to the various uses of an artificial arm and hand. They are easily adjusted by the wearer.

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ESSAYS, MONOGRAPHS, AND CASES.

“ *The Elliptical Artificial Tympanum.*” By J. HENRY CLARK, M.D.

If the sequelæ of the exanthematica of childhood, especially in relation to the ear, were more carefully watched, and the subsequent otorrhœa treated *patiently* on rational principles, the artificial tympanum would less often prove a useful appliance. The majority of cases which have fallen under our observation, in which this instrument has proved of service, have been those of neglected otorrhœa. The eruptive diseases of childhood leave a trace nowhere so often as in the organ of hearing. This seems to be the case, frequently long after all constitutional effects have ceased to manifest themselves. The disease is local in its character, and requires *local* treatment. If these cases can be held under treatment a sufficient time, they can be cured with as much certainty as any other diseases, and oftener than many ailments for which we are called to prescribe. Among the improvident changing classes that seek relief at a charitable institution, treatment would, of course, be less successful than among those whose position is higher up in the scale of society. This disease produces little practical disability, and failing to excite disgust, it is permitted to proceed to the destruction of the membrana tympani, before atten

tion is fairly excited. If proper treatment fails of success, when perseveringly employed, it is generally because the patient could not be held to one course of treatment long enough to accomplish a cure. To change the condition of the meatus auditorius externus, which for years has secreted a loathsome purulent fluid, and discharged it from its interior mucous surface, and bring this canal to a healthy condition, producing only its proper legitimate secretions, often requires much time, and the careful, patient adaptation of local remedies, as well as due regard to the constitutional peculiarities of the patient.

On referring to our record, which includes patients of nearly every age, from a few months to full maturity, we conclude that if the patient is under ten years of age, six months may be named as the possible limit of the continuance of the disease. It is oftener cured in less time. If the patient is under fifteen, nine months may be named, with the expectation of effecting a cure in less time. If over fifteen, one year is the least period of time that it is safe to calculate upon, and if older, it may require years; but if patience does not fail, a cure may be promised as likely to result. As is true of all diseases, some cases, in the present state of our knowledge, are incurable, but they are believed to be very rare.

Two patients have just passed from under our treatment. The one was a young lady, aged twenty-four; the discharge had continued 19 years, ever since an attack of scarlatina, in childhood. It has required about fourteen months to effect a cure, but the cure is *complete*. In the other case—also that of a lady—the patient was 28 years of age. The disease in this case also commenced in childhood, at about five years of age. To effect a cure has required within three months of three years. Two lads have just ceased attendance, who have been cured within the period of four months. The disease had continued in these cases about nine years. Many cases might be referred to, where there was no constitutional complication, in which one or two months have been sufficient to effect a cure. These cases are cited to illustrate the proposition that with time and patience most cases are curable. If the ear received the same watchful care during an attack of scarlatina, and subsequently, a smaller number of children would be permanently deaf; and if the cases were followed up by the treatment of the anæmic condition that frequently ensues, fewer tympanums would be destroyed. The worst cases of scarlatina occur in scrofulous subjects, in which measures termed “anti-phlogistic” would be inadmissible. The prompt administration of tonics and anti-scrof-

ulous remedies, with due regard to the condition of the bowels, with counter-irritation behind the ears, will generally prevent mischief.

Some physicians discourage the treatment of the discharge after recovery from the eruptive diseases of childhood, and in this way induce fatal neglect. Parents are told that "the child will outgrow it, that it will get no worse, that it is dangerous to arrest the discharge, and are sometimes advised to stuff the meatus with cotton, and wait for time and improved health to do the rest. The truth is, those cases do *seldom improve without interference*. It is just as safe to arrest a discharge in this situation as in any other. It is dangerous, highly so, not to do it just as soon as it can be done in a proper, legitimate manner. It is dangerous to life, as well as the faculty of hearing, to permit the discharge to continue, while it is to the highest degree unpleasant and mortifying to a sensitive patient. If the discharge must continue, it is better, far better, not to put cotton in the ear. That hole was never designed to be stuffed. Cases could be cited which have recently come under our own observation, in which a cure was effected by simply removing the cotton and ordering its discontinuance. We have repeatedly obtained undeserved credit by removing an old pledget of cotton which for years had furnished mechanical obstruction to the due performance of the functions of the ear.

While a single generation of physicians sometimes get rid of chronic errors, it takes several ages to rid the community of erroneous doctrines once assiduously taught by the profession. It is high time that we began to teach new, truer, and safer doctrines in relation to the domestic treatment of the ear.

With regard to the treatment of these cases, unless produced by morbid growths, we rely upon astringents, and alteratives locally applied, with constitutional treatment, if required. It is frequently a mere local disease.

In a majority of cases of otorrhœa occurring in adults, the tympanum is ruptured or partially obliterated. When the disease is fully arrested the discharge wholly ceases, and the surface that has secreted a muco-purulent fluid furnishes wax. After the first stage of cure is passed—during which the hearing is impaired rather than improved, because the fluid afforded a medium for the transmission of sound to the internal ear—the artificial tympanum may be used often, with manifest advantage.

In 1842, a lady, who was a patient of "Yearsley," discovered that the presence of cotton-wool in the ear improved her hearing. That

gentleman carefully investigated the cause, and thus discovered the artificial tympanum. The great success of Yearsley's cotton plug induced Toynbee to prepare the rubber artificial drum, so long used and so well known to the profession. It is now evident that any substance made to occupy the place of a ruptured tympanum will improve the hearing. The moistened cotton of Yearsley even yet seems to us not applicable to some cases. Yearsley maintains that the cotton *cures* the discharge, and that it can be readily and pleasantly worn day and night. It is certain that all forms of rubber drums induce or promote discharge by causing irritation, and moreover they require to be removed at night. A rubber drum properly constructed is far more available, because it is readily adjusted. It is not by any means so easy—Yearsley to the contrary notwithstanding—to adjust that pledget of cotton. An artificial drum of any description must be adjusted by the patient himself, who is guided by the sense of hearing and the experience which he very soon acquires.

By the material aid of a very observing and intelligent patient we have introduced an artificial tympanum which we regard as better than Yearsley's cotton plug or Toynbee's drum. The material is the same as that employed in the manufacture of some which are found in the shops of Toynbee's pattern, but the form is wholly different. The form of Toynbee's drum is round, with a staff straight, or slightly inclined from perpendicular, while the one here described is egg-shaped or elliptical, with a staff nearly circular. The point of suspension is not, like that of Toynbee's drum, in the centre, but in one end, which causes it to assume the desired concavity of an ellipse. After being worn a short time it permanently assumes a concavo-convex form, the concavity looking inward, which greatly increases its effectiveness, and in shape seems as far as possible to supply the loss of the natural tympanum. The form and direction of the staff on which the drum is suspended is curved downward, adapting itself to the shape and form of the canal in such manner as to be insulated, and in no case to touch the sides of the canal. This diagram will show the shape of the drum alluded to, and the bend of the shaft.



The drum is elliptical in shape, about a half inch in length and three-eighths of an inch in breadth. It generally requires reduction. It may be cut to any size.

The staff is about seven-eighths of an inch in length, and is bent to the form here indicated. It terminates with no ring, the end of the staff being cut off. If a ring is made to facilitate its removal, it will come in contact with the lower and outer edge of the meatus auditorius externus, producing unpleasant vibrations whenever the head is suddenly moved, and confusing the patient. The drum should be so introduced that the wire curves downward. The directions for its introduction are so intelligently described in the experience of my patient, before alluded to, that I quote from one of his letters: "I moisten not only the drum, but the ear, with a pencil dipped in water or glycerine. If the canal be dry, I find it of great service to apply the wet brush to a cake of fine soap, and thus applying to the ear weak soap-suds. This seems to make the drum adhesive, and it retains better its position. My ear is so dry that merely wetting the drum will not answer. If any do not find benefit from the artificial tympanum, I believe it is often for the want of judgment with regard to their introduction into the ear. I find that great care is needed with regard to holding the wire. I find that the proper direction to be given the staff is to incline it *downward* and *inward*, holding it tightly between the thumb and fore-finger. I pass it down till I feel a gentle roar; I then press on gently with the fore-finger only till I hear sound break distinctly. I find it very important not to push the drum in *too far*; I find if I do this that I do not hear so well as when the drum is out; I find that repeated attempts are frequently necessary in order to get the drum properly adjusted; I find that it is frequently necessary to withdraw the drum entirely and take a fresh start, for I find it important to give it the proper direction on its first introduction." This is the experience of many patients into whose ears we have introduced the artificial drum, of the shape and form recommended. This gentleman thus concludes his letter, which I quote, as proving the usefulness of this contrivance in some cases: "I believe that any whose natural drum is ruptured can obtain great relief. To me this is invaluable. It is the only relief that I have ever obtained, and it has reduced my previously serious deafness to a trifling inconvenience. It is more than I ever expected to enjoy, and I owe you a debt of gratitude that I shall have reason to remember through all my mortal days." When the drum he was using had decomposed he wrote me for another. In the letter he thus remarks: "I feel lost without a drum. I need it always, especially in the pulpit. It serves the double purpose of assisting hearing and speech."

It would be easy to multiply testimonials of the usefulness of the

artificial drum. Says one in relation to it: "It affords me all the relief that I expect to have in this world, and money does not estimate its value." Says one afflicted: "I would not be without one of these contrivances for a very large price."

With regard to the material to supply the place of the best tympanum, there is room for experiment and investigation. It would seem easy to find the thing that we want; it seems to be at our finger's end; still, we do not yet obtain it. A material is required thin, elastic, and pliable; still, sufficiently hard to resist the action of the secretions which must lie in contact with it. At this point of inquiry, india rubber fulfills most of these indications; still, it is open to serious objections. It is heating, clumsy, and keeps up instead of curing the discharge. Unless prepared with care, it rapidly decomposes in the ear; and all specimens of rubber sheet, even when said to be properly prepared, also decompose sooner or later. It is not certain whether this effect can be wholly prevented. The ordinary native rubber, such as the old-fashioned rubbers were composed of, very rapidly decomposes in the ear. The creased rubber which is sometimes used is of this description, and is very unfit for the purpose. Dr. Turnbull, in the *New Jersey Medical Reporter* speaking of the effect of the discharges of the ear upon the rubber drum, says: They caused the india rubber to "wrinkle and change color, so that it had to be removed from the ear, in order to give it a chance to recover." My patient writes: "I have worn out two drums within the past few weeks;" and again: "I find that some specimens of rubber sheet decompose much more rapidly than others, and none so fast as the seamed or creased." The rubber that has even lines or seams across the sheet is native rubber, cut with a sharp knife from large blocks. It is imported from Paris, and, as before said, is entirely unfit for the purpose.

If some material could be found that possesses a degree of elasticity, which is about the only quality that makes rubber suitable for this purpose, it would greatly serve the cause of humanity. We have, with the aid of our patients, tried a series of experiments with various kinds of rubber sheet with ivory softened and steamed, with collodian sheet, and with gutta percha vulcanized. We hoped that the latter article would furnish the thing sought; but it proved too brittle and harsh. We discovered that those specimens of rubber which resisted the decomposing action of the fluids of the ear contained a larger amount of sulphur. The power of resistance depended upon the method of manufacture. If the rubber contained

about eight per cent. of sulphur, it would probably be in the best condition for our purpose. More than this would make it too stiff and unyielding. The pencil-cases, caustic cases, combs and canes in common use, are made of material which contains fifty per cent. of sulphur. It is coming into use for the purpose of attachments for teeth, to be worn constantly in the mouth. It is said that rubber thus prepared resists the action of the fluids of the mouth as well as gold or platina. The new process of preparing the native rubber, by treating it with bi-sulphuret of carbon and dry chlorine gas, would seem to be less desirable than the old one, of grinding up the native rubber and applying heat, after mixing it intimately with sulphur. The addition of sulphur prevents the action of the atmosphere, while it does not materially affect the elastic properties of the gum. The best sheet rubber for our purpose that we can obtain, contains about five per cent. of sulphur. The quantity is so variable, that it is impossible to determine, without using, whether a particular specimen will or will not prove well adapted for our purpose. The demand is so small, that it is difficult to get it manufactured in the proper manner. Those who use the artificial drum should be very careful to dry them very properly, or they soon become sticky, and decompose. On this subject my patient, before alluded to, remarks: "I have one drum reduced to a pulp, while the other is perfectly sound. The first I permitted to dry *in contact* with other substances; the latter I dried carefully in a glass tube, apart from anything else." It is not proper to use any rubber drum which can now be procured, without observing the precaution to dry it carefully, slowly, and in an isolated situation, to prevent adhesion. We have been accustomed to moisten the drum in glycerine before its introduction. It seems to better apply itself to the rupture. We have found that when decomposition begins to manifest itself in the drum, its destruction is certain and rapid. They seldom last many weeks without change, unless peculiarly fortunate with regard to the rubber used, or unless they are little worn. One writes of the new drum, and says: "I find the elliptical drum is adjusted in a fraction of the time required for one of the ordinary shape, and furnishes, I am certain, much more aid to hearing." Says the same correspondent: "I find that the thick sheet aids me less with regard to hearing, but decomposes less rapidly. The point is, to have it thin, almost diaphanous, and still durable. It is a nice point to make a good drum. If some manufacturer would undertake it, he would confer a very great favor upon many unfortunates. No rubber drum can be used, while the discharge continues, without in-

jury. As before said, the proper application is not less important than the quality of the interposing substance. Yearsley still uses his cotton-wool. In his steadfast adherence to his first method, this gentleman may be influenced by the somewhat unpleasant controversy that has sprung up on this very subject. Doctors never did, and probably never will, entirely agree. It should be expected that they will at least keep their quarrels from obtaining publicity. If doctors injure one another, the whole profession suffers loss, and quackery is exalted. We are losers by the excessive journalism of this day. The slightest quarrel is advertised, and reporters are ubiquitous. There is in all our houses so much glass, that we cannot afford to throw stones. Leaving the drum controversy, without entering it, Mr. Yearsley, as before intimated, insists that his cotton is more easily applied, safer, and more cleanly; that it is easily introduced, causes no noise in the ear while eating or bathing—the other does, in some cases; that it cures the discharge, instead of aggravating it; and facilitates hearing as much as any other interposing substance. Other operators do not find it easy to acquire the tact necessary to introduce the cotton-wool; and when introduced, find it less efficacious than the drum of Toynbee. It is important to be familiar with both methods. We believe the moistened cotton frequently the best. We think that the modification proposed in this article suggests a much better article than either, in perhaps the greatest number of cases. The artificial drum often fails because it is *too large*. There should not be a complete closure of the perforation. A very small object is often sufficient to afford the necessary relief, if that object can by any means *be kept in the right place*. The following is the explanation given by Yearsley:—"The partial loss of the membrana tympani deprives the ossicula of their natural support and tension; the foreign body is so adjusted against the remaining portion of membrane as to afford the necessary support of the ossicula; and then the waves of sound break upon the object introduced, cause the membrane and chain of bones to vibrate, through which the impulse is conveyed onward to the fenestræ, to the expansion of the auditory nerve in the labyrinth, and finally to the brain." Whether this is a proper explanation of the phenomena, it is not easy to decide. It is certain that in many cases a very small drum is useful, while a large one entirely fails. At this point much judgment is required. The drum described in this article may be cut to any required size. It may owe its peculiar virtue to the fact that, when *in situ*, it at once becomes convex anteriorly, and afterwards retains

this shape. Thus is accomplished incomplete closure of the perforation, which Pileher, as well as Yearsley, regards necessary to success.

It would seem as if the bladder of some animal, or some other unexamined material, would furnish the article required for the best artificial tympanum. If we can succeed in stimulating to more diligent inquiry in this direction, our whole object will be accomplished. We should be glad to see a better drum than the one that we introduce. In the mean while, we would beg for it a fair trial. They are to be procured at Mr. Tiemann's, in Chatham Street, or can be readily prepared by any one who can command the time, and has a little mechanical ingenuity.

Surgical Cases. By CHARLES K. BRIDDON, M.D., Surgeon to the New York Dispensary.

(Read before the New York Society of Statistical Medicine.)

The literature of hernia is rich in anomalies, and it is well known to the practical surgeon that every case of strangulated hernia is a case in itself, displaying new features, differing from those met with in other cases, and complicating beyond description its surgical pathology. Appreciating the value of correct anatomical knowledge of the normal relations, I cannot conceive that any more useful information can be obtained of the abnormal, or distorted relations of hernia, than from the perusal of recorded cases; each one offering some interesting facts worthy of being stored away for future occasions; and with such impressions, I give the notes of the two following cases, both possessing peculiarities worthy of consideration, and both successful as regards their results. The first case of femoral hernia was interesting, on account of its unusual size. The second, one of oblique inguinal, was so on account of the condition of the sac and its contents, and the effects of the latter upon the former. It will be remarked that upon opening the sac, two ounces of fluid escaped, and that a small knuckle of intestine was found in the inguinal canal; the taxis, patiently and carefully applied, had failed to return the fluid contents into the abdominal cavity. These conditions, and their effects, may be explained in the following way: it is a recognized hydrostatic law, that fluid pressure is equally and universally diffused, exerting the same influence on every portion of a containing cavity;

in such a case the sac, filled with fluid and separated from the abdominal cavity by an effectual plug of strangulated intestine or omentum, is rendered tense by the pressure exerted on its walls, and this same pressure everywhere diffused, acts equally upon the other contents; the opposing surfaces of that portion of the intestine engaged in the constriction are approximated, and form a barrier to the return of either gut or its contents. Again, the pressure acting on the largest portion of the double, or free fold of the intestine, forces it, in the form of a cone, into the stricture; the form best adapted for its effectual closure intensifying the constriction, and foiling the mechanism of the taxis. Such appeared to be the condition in the second case; the division of all bands external to the sac failing to permit the reduction of its contents, which was easily effected, on evacuating the fluid.

I. *Strangulated Femoral Hernia. Operation.*—January 24th, 1859, I was summoned at 7 p. m. to visit Bridget Mullins, a district patient of the New York Dispensary, living at 138 Reade Street. The patient is a native of Ireland, 38 years old, married, and the mother of five children. She has been troubled with a femoral hernia on the right side for the last eight years; it would come down occasionally, but a few hours in the recumbent position generally sufficed to reduce it. The last descent occurred on the 22d, fifty hours before my visit, and was rapidly followed by symptoms of strangulation; means used to return it were unavailing, and the taxis was applied for some time by an intelligent physician, but his efforts were not rewarded by success.

Present condition: Patient is a moderately stout woman, appears anxious; lies on her back, with the right thigh flexed on the pelvis, and adducted, and complains of pain in the tumor and about the crural canal; she vomits everything she takes, has a slightly accelerated pulse, no abdominal pain or tenderness, and has had no fœcal evacuation since the morning of the 22d. On examining the right groin, we found a tense elastic tumor below, and overlapping the junction of the middle with the internal third of Poupart's ligament; it was about the size of a small lemon. ovoid in shape, lying with its long axis obliquely transverse; its superficies were suffused with a blush of redness, probably the result of manipulations; it did not convey the cough impulse, and was not resonant on percussion. I advised the taxis under ether, and in the event of that failing, an operation.

9, p. m.—Assisted by Drs. Aigner, Quimby, and others, the patient was placed under the influence of the anæsthetic. The taxis was em-

ployed, but without making the slightest impression on the tumor. An incision was now carried vertically in the direction of the short axis of the tumor. The fascial coverings were carefully divided on a director, and the sac was exposed in its entire extent. It was found to be tightly constricted in the crural ring. The bands forming this constriction were divided by a blunted blunt-pointed bistoury carried flatwise along the fore-finger, and then turned with its cutting edge opposed to them. The division of all constriction external to the sac did not, however, permit the reduction of its contents, and it was found necessary to open that investment. This was done at a point where it was free from adipose deposit; the opening was enlarged to admit the finger, and exposed a knuckle of intestine firmly embraced by the neck of the sac itself. This constriction was so close that it with difficulty admitted the extreme point of the finger, and its division permitted the easy return of the imprisoned gut. The sac contained but a few drops of bloody serum, and the intestine was claret-colored, with a patch of ecchymosis of a darker hue; the wound was brought together by sutures, a compress and bandage was applied, and the patient was ordered opium, 1 gr. every three hours.

25th.—The patient says she feels comfortable; pulse about 100; tongue moist, and but slightly coated; no abdominal pain or tenderness.

26th.—As yesterday, abdomen lax, free from pain; she lies with her legs extended; diet arrowroot and milk.

27th.—Sutures removed, upper portion of wound united; the lower part is open and suppurating; general condition favorable.

28th.—As yesterday, bowels have not moved; opium every four hours.

29th.—Patient says she feels weak, and does not appear so well as yesterday; abdomen is free from pain, bears pressure well, and has no increased frequency of pulse over that of yesterday; she was perspiring freely all night. I attributed the feeling of weakness to the sweating, which had not been preceded by a chill, and ordered discontinuance of the opium, and the use of beef-tea in addition to her former dietary.

31st.—Much improved in every respect; had two copious evacuations from the bowels yesterday, and feels much relieved; pulse under 90; tongue much cleaner; abdomen lax, and free from pain.

February 8th.—The wound is nearly closed by the process of granulation; the general condition of the patient is good; bowels are regular, appetite good, and the only complaint made is of the confinement to the bed.

II. *Case of Strangulated Oblique Inguinal Hernia. Operation.*—October 12th, 1858, I was requested by Dr. John W. Corson to visit W. A. H., No. 5 Mott Street. I found the patient a tall, healthy youth, sixteen years of age; he had been suffering from an inguinal rupture for the last eight years; had worn a truss irregularly, and did not have it on at the time of its last descent, which occurred on the morning of the 11th. The efforts of the patient to reduce the tumor were ineffectual, and he soon began to suffer from colicky pains around the navel; uneasy feeling at the epigastrium, and in the neighborhood of the inguinal canal; he was also unable to retain anything on his stomach.

10, A. M.—Present condition: The patient is apparently in rugged health; he lies on his back with both legs drawn up; is restless, and appears flushed and anxious; pulse accelerated; tongue moist and a little coated. On examining the inguinal region, we discovered a tumefaction of the canal, and a tumor passing from the external ring into the scrotum, its size equal to that of a hen's egg; it was neither tense nor painful; there existed a little tenderness about the ring, but his principal complaint was of pains about the umbilicus and epigastrium, and of the vomiting. I employed the taxis unavailingly. Ordered one grain of morphine, ice to the tumor, and a visit was appointed at 4, P. M., when it was determined to place the boy under the influence of ether, and use such means as the circumstances might indicate.

4, P. M.—Assisted by Drs. Aigner, Quimby, and Corson. The patient was brought fully under the influence of the anæsthetic, and the taxis was perseveringly employed, but without effecting any reduction in the size of the tumor, which was in the condition in which we found it at the morning's visit, and it was concluded that division of the constriction offered the only means of relief. Operation:—an incision was made through the integuments and superficial fascia three inches in length, commencing over the inguinal canal, and carried downward and inward in the direction of the long axis of the tumor; the hernial coverings were successively divided on a director down to the sac; an endeavor was made to reduce without opening this peritoneal process, by dividing all constricting bands situate outside of it; but this was not sufficient, and did not permit of reduction; the sac was opened, and about two ounces of clear straw-colored serum escaped; the sac external to the ring contained neither intestine nor omentum, and appeared to have been completely filled by the serum which escaped on opening it, and yet it was evident that the canal itself had been

completely occupied, inasmuch as the fluid contents of that portion of the sac, situate external to the ring, could not be returned into the abdominal cavity. On passing the finger into the canal, a small knuckle of intestine was discovered within, firmly embraced in the neighborhood of the internal ring. I could pass the extreme point of my fore-finger beneath the constriction, and withdrew it to give the gentlemen in attendance an opportunity of examining its condition. On Dr. Aigner making his examination, the gut slipped into the abdominal cavity, and thus obviated the necessity of any further incision. The wound was brought together by sutures and adhesive strips; a compress and bandage were applied, and a grain of opium was ordered every four hours.

The day following the operation the boy expressed himself as feeling comfortable; he vomited once only, and that before he was quite recovered from the effects of the ether; his pulse was 80, and moderately full; there existed a little tenderness in the neighborhood of the parts, but nothing more than must have ensued as a necessary sequence. He steadily and favorably progressed until the 14th, when he began to suffer from retention of urine; this symptom annoyed him for about a week, and was relieved by the catheter. Only a portion of the wound united by first intention, the remainder filling up by the process of granulation; his bowels moved on the 19th, and on the 26th, the wound having been cicatrized several days, a truss was applied, and the patient was allowed to rise.

III. *Case of the Operation of Lithotomy in the Female.*—Eva Eberle, living at 216 Thirty-eighth Street, a large, corpulent woman, fifty-eight years of age, native of Darmstadt, Germany, married, the mother of seven children; came to this country fifteen years since; has always enjoyed good health until two years and a half ago, when she began to suffer from symptoms of stone in the bladder. These sufferings gradually increased, and two months ago became so severe, that she was obliged to take to her bed.

January 19th, 1859.—Present condition: General health of patient is good, and the local trouble does not appear to be complicated by any visceral disorder; she has no pain in the lumbar region; appetite is unimpaired; bowels regular; tongue moist, and but slightly coated; pulse is under 90, and of fair volume. She suffers much from incessant desire to micturate, from vesical tenesmus and from incontinence, which has existed since she took to her bed; urine is neither acid nor alkaline; spec. grav. 1010, pale, depositing a viscid, dense, opaque, and light-colored sediment after some hours standing; exhib-

its under the microscope, cells of bladder epithelium, abundance of pus corpuscles, a few blood corpuscles, and the truncated prisms of the triple phosphates. On sounding, the bladder was found empty of urine, and so closely contracted down upon the contained calculus, that it was impossible to estimate its size without inflicting unnecessary pain. She was ordered the bicarb. potass. in barley-water, an opiate suppository every night, and, her present condition being favorable, it was concluded to etherize her at the next visit, and to adopt such operative means as might be deemed most expedient.

January 21.—Assisted by Drs. Aigner, Budd, Gomez, and Hexamer. The patient was brought under the influence of ether; the urethra was gradually dilated until it admitted the index finger, which detected a calculus the size of a small hen's egg, presenting a sharply, but finely granular surface; this condition, with the microscopic examination, justifying the conclusion of its being phosphatic, and consequently friable, the dilatability of the urethra favoring its removal through that canal, and the extreme corpulency of the patient offering objections to the supra-pubic operation, its removal was proceeded with in accordance with such views. Along the finger already introduced, a blunt-pointed bistoury was carried flatwise; it was then turned, with its cutting edge opposed to the mucous lining, dividing it and the sub-mucous cellular tissue in a direction upward and outward; this incision was repeated on the opposite side; a strong lithotomy forceps was easily introduced, and the stone was crushed at the first attempt; a large quantity of the smaller fragments were withdrawn with the forceps; the central portion of the calculus resisted crushing, and was removed entire; this piece weighed half an ounce, measured one inch and a half in its long diameter, and one inch and a quarter in its shortest; it was then ascertained that no fragments remained, and the bladder was well irrigated with cold water; Simms' catheter was placed in situ, and the patient was ordered a suppository of opium every eight hours; the calculus weighed, after drying, 11 drachms.

22nd.—Patient has passed a good night, is free from pain, and expresses herself as very comfortable; pulse 96; tongue moist, and but little coated; the catheter maintains its position in the urethra admirably; the urine passes freely through it, and none by its sides. For the first few hours after the operation it was tinged with blood, but is now free from such coloring.

23rd.—Patient slept through the whole night, and says she feels better than she has done for many years; pressure over the hypogastrium. elicits no expression of pain; pulse about 90.

24th.—The catheter slipped from its position last night, and the patient has been annoyed by the pain she suffers in voiding her urine, which she is able to retain one hour and a half. Ordered the suppositories to be resumed, and internally, potass. bicarb. in barley-water.

25th.—Patient says she feels much better; the dysuria has ceased, and she retains her urine one hour and a half and two hours.

26th.—Much the same as yesterday; urinates in the bed-pan; no pain; pulse 90; bowels regular; appetite and general condition good.

28th.—Pulse normal; retains her urine two hours, sometimes longer; examined her morning's urine to-day, and found as follows: spec. grav. 1010, much less deposit than before; under the microscope none of the prisms of the phosphates were found, but numerous octohedral crystals of oxalate of lime; there were but few pus corpuscles, and the number of epithelial cells were correspondingly diminished. Ordered dec. pareira brava.

March 1st.—The patient's son presented himself at my office to-day, and reported the condition of his mother. She is about the house, free from all suffering, and in better health than she has been for some years past; retains her urine two hours, and sometimes longer, and is only occasionally annoyed by involuntary discharge during sleep.

IV. *Popliteal Aneurism. Deligation of Superficial Femoral.*—*Cure.*—January 2d, 1858, John Lovett, an Irishman, 32 years old, presented himself at the New York Dispensary, with a pulsating tumor in the right popliteal region. He had experienced pain in the knee and along the course of the internal saphenous nerve for six months, and his attention was drawn to the swelling in the popliteal space three months before the time of his coming under observation. The tumor was about the size of a hen's egg; had a distinct pulsation and bruit, both of which ceased on the application of pressure to the artery at the pubes; the usual pressure effects were manifested in the presence of the tortuous veins of the leg, and in the severe pain which annoyed him constantly. The patient was a longshoreman by occupation, accustomed to laborious tasks and muscular efforts; his habits were intemperate, and he bore evidence of syphilitic contamination. An operation was advised, to which he consented, and which was done on the 9th. A ligature was placed on the superficial femoral, four inches below Poupart's ligament. The pulsation in the aneurismal sac ceased on tightening the ligature; the pains in the vicinity of the joint ceased twelve hours after the operation. On the 12th, the dressings were removed, the tumor was reduced in size; a

vessel could be traced over its surface, which pulsated, but there was no lateral pulsation in the sac itself; the temperature of the limb was two degrees higher than that of its fellow; pulsation could also be felt faintly in the posterior tibiæ, in the *anastomotica magna* and articular arteries. After the last date, the case progressed favorably; the ligature did not come away until the thirty-fourth day, when the tumor was solid and pulseless.

February, 1859.—The man is now following his occupation along-shore, and there is no trace of the aneurism left.

A New Function of the Placenta. By CLAUDE BERNARD.

(Translated from the French by WM. F. HOLCOMB.)

The object of my communication is to establish anatomically and physiologically that, among its uses, which are without doubt diverse and multiplied, the placenta is designed during the first stages of foetal development to perform the "glucogenic" function of the liver before it has acquired the development and the structure in the foetus which permit it later to perform its functions. I have for a long time been diverted from the point to which all my researches tended, because I made my experiments upon the placentas of ruminants, which are most easily procured in the slaughter-houses of Paris. For several years I have made multiplied, but fruitless, observations upon calves and sheep taken at all stages of intra-uterine life, and it was impossible for me ever to find any part of the placenta of these animals which contained glucogenic matter. In spite of these complete failures, I had recourse afterwards to the placentas of rabbits, Guinea pigs, &c. I found that there was in the placentas of these animals a whitish substance formed of epithelial or glandular cells agglomerated. I proved that these cells, like those in the liver of the adult animal, were filled with glucogen. This mass of glucogenic cells seemed to me to be situated principally between the maternal and the foetal portions of the placenta, and after being developed they appeared to become atrophied in proportion as the foetus approached. The time of birth I recognized in this manner: that the placenta of the rabbit and Guinea pig is formed of two parts, having distinct functions: the one portion vascular, and permanent until birth; the other glandular, preparing the glucogenic matter, and having a duration less extended. Notwithstanding there remained the negative observations made in such great

numbers upon ruminants, which were for me as unquestionable as those in which I had obtained positive results. In resuming these investigations, I have arrived at the proof of a remarkable disposition which could not certainly have been foreseen: that is, that in the ruminants, whilst the vascular portion of the placenta, represented by numerous cotyledons, accompanies the allantois, and spreads itself upon its external surface, the glandular portion separates from it, and is developed upon the intestinal surface of the amnios. From which it results, that if in the rodentiæ and other animals with a simple placenta, the vascular and glandular portions of the placenta are mingled together; in the ruminants, on the contrary, these parts of that organ are developed separately, and on distinct membranes, and can, in consequence, be observed separately in their respective evolutions. Thanks to this anatomical disposition, we can prove clearly that the vascular portion of the placenta is persistent and increases until the moment of birth, whilst we see the glucogenic portion attached to the amnios growing during the first period of gestation, and attaining at the third* or fourth month its maximum of development, then disappearing little by little, in passing under the various forms of atrophy and degeneration, in such a manner, that at the birth of the mammiferæ there will not exist a trace of the hepatic portion of the placenta. It must be added, in characterizing distinctly these organs, that during all the time of the growth and action of the hepatic placenta of the amnios, the *liver* of the *fœtus* possesses neither structure nor function, and that it is precisely at the moment when the liver is developed, and that the cells, having acquired their definitive form, commence to secrete the glucogenic matter, that the hepatic organ of the amnios begins to disappear. The hepatic "plaques" of the amnios in the *ruminants* appear in the first stages of embryonic life. They are developed gradually on the internal surface of the amnios, covering at first the umbilical cord, just to the point where a distinct line separates the skin from the amnios. Then these coverings, which, upon the portion of the membrane which clothes the cord, assume more particularly the form of villosities, extend themselves upon the other portions of the amnios in proportion as the sanguineous vessels which accompany them are developed. They increase little by little in volume, formed at first of a transparent matter; they become later more opaque, especially towards their edges, which turn up a little, and cause them to resemble in appearance a

* I can give here only an approximate limit, by reason of the impossibility to know the exact age of the calves procured at the slaughter-houses.

cover of lichen. They are, besides, in form sometimes flat, sometimes filiform, extremely varied, and sometimes so confounded with each other as to become confluent. When completely developed, these "plaques" sometimes attain a thickness of three or four millimetres; those which are filiform occasionally present a much greater length, and are now and then enlarged in the form of a club at their extremities. Later, these hepatic "plaques" cease to develop. In certain parts they become yellowish, and assume a fatty appearance; in other places they fall, and float in the liquor amnios. They leave at first a kind of cicatrix, which afterwards entirely disappears. It can be proved with the greatest facility, that the glucogenic matter is always present in the hepatic "plaques" of the amnios in every stage of their development. As soon as they appear it is easy to recognize this matter with the microscope, by the aid of iodine. When these "plaques" are perfectly developed this matter can be obtained in large quantities, and its character studied. To obtain it easily, the process consists in dipping the amnios membrane in boiling water, so as to permit the layers to be easily detached, then grind them in a mortar, and extract the matter by boiling exactly the same as for the glucogenic matter of the liver. As to its character, the glucogenic matter of the amniotic "plaques" offer the most perfect identity with that of the liver. It dissolves in water, precipitates by alcohol, and crystallizes by acetic acid. Iodine gives it an intense wine-red color, which disappears by heat, and reappears on cooling. This coloring, by iodine, of the glucogenic matter of the amniotic "plaques," takes place not only when it has been extracted from the cells by boiling, but also upon the cells themselves, as we shall soon see. Like the glucogenic matter of the liver, the matter from the amniotic "plaques" changes into dextrine and glucose with the greatest facility, under the influence of ferments, both animal and vegetable, and by boiling with strong acids. When the anatomical structure and development of the hepatic "plaques" of the fœtus are studied, the formation of the glucogenic cells can be distinctly followed, as well as the development of the matter in their interior. The amnios membrane in the calf seems to be at first deprived of well-characterized epithelium, and the tissue is found to be constituted especially of elastic fibres, with nuclei contained in a network of cells; in appearance fusiform. At the moment even of the appearance of the "plaques" there can be seen by the microscope upon the internal surface of the amnios, and at first upon that part of this membrane which covers the umbilical cord, a species of *spot* formed by epithelial cells; then in the centre of that spot can

be seen groups of glandular cells, at first in very small numbers; and it even happens that at the very first appearance of this "plaque" it seems to be formed of only one or two glandular cells. The glandular or glucogenic cells are distinguished from the epithelial cells which accompany them, first by their form, and afterwards by their reaction with iodine. In fact, if a little of the acidulated tincture of iodine be added to a papilla, or to the amniotic "plaques," and placed under a microscope, the cells will very soon be seen to take a wine-red color, while the epithelial cells will remain colorless, or become slightly yellow. Little by little, the groups of glucogenic cells increase by their development, and take the form of papillæ, particularly upon that part of the membrane which covers the cord. Examined under the microscope, these papillæ are found to be constituted of glucogenic cells, covered by epithelium. When the acidulated tincture of iodine is added, these glucogenic cells of the papillæ become a wine-red color, especially at their base, which is distinctly separated from the tissue which surrounds it. The hepatic "plaques" are composed of the same elements as the papillæ. It is very difficult to know if, in their agglomeration, they should be considered as a union of papillæ, or as having another mode of growth. All that can be said is, that they are seen to extend themselves by their circumference, which offers well-developed glucogenic cells; while in the centre, these cells seem sometimes to be at a stage of development less advanced. When the cells are broken and the anatomical elements mechanically separated, the isolated cells are obtained sometimes with a nucleus and sometimes with a nucleolus, and containing a granulous substance. This substance takes a wine-red color with the tincture of acidulated iodine. The core or nucleus, the volume of which seems susceptible of variation under re-agents, does not always take the same color with the iodine. The cells of the hepatic "plaques" of the amnios offer, moreover, a great analogy of form and of reaction with those of the liver in a state of action.

The cells of the amniotic covering and those of the liver may be separated by macerating for a time a portion of the tissue of these organs in a concentrated alcoholic solution of caustic potash. Then the contents of the two orders of cells remain insoluble, and fall to the bottom of the liquor in the form of a whitish matter, which presents, under the microscope, either the primitive form of the cells, or amorphous granulations. If, then, the excess of potash is saturated by crystallizable acetic acid, and the tincture of iodine be immediately

added, the wine-red color appears with even more intensity than in the fresh cells.

When the hepatic coverings commence to grow yellow, to fall, or to be absorbed, or to degenerate into fatty matter, changes can be perceived in their microscopic structure. The glandular cells lose in general, at first in the nucleus or core, and at the same time the glucogenic matter; so that in heating, under the microscope, one of these altered coatings with the acidulated tincture of iodine, a mingling of cells is seen, of which some are of a wine-red color, while the others remain colorless. It is proved, besides, that the cells remain colorless, are deprived of their nucleus and of their granulous contents. At the same time there is a perceivable difference between these two extreme conditions; there are some of the cells from which the nucleus and the granulous matter have almost disappeared, and in which the wine-red color is hardly perceptible.

A little later, when the "plaques" of the amnios are formed of cicatrices, only the flattened cells are found, but entirely deprived of their nucleus, and in which it is impossible to find the least trace of glucogenic matter. Later, these cells disappear entirely. When the "plaques," instead of falling or disappearing, degenerate into fatty matter, the microscope proves their presence; at the same time mingled with this fat are seen beautiful octohedral crystals, which present the same characteristics as the crystals of *oxalate of lime*, inasmuch as they are insoluble in water, or in *acetic acid*. It is unnecessary to add, that there is a complete absence of glucogenic matter in the degenerated hepatic "plaques." If now we examine, together, the evolution of the hepatic "plaques" of the amnios and the organization and development of the texture of the liver of the fœtus, we shall be struck with the connection, constant and *inverse*, which is observed between the development of the cells of the liver and that of the hepatic "plaques."

During the first stages of embryonic life,* while the amniotic "plaques" are well filled with glucogenic matter, it is proved that if the liver of the fœtus, then very soft, and composed only of embryonic cells, rounded or fusiform, be dissolved in the alcoholic solution of potash, it is not colored by the iodine, nor has it any of the

* In the commencement of fœtal life in the embryo of the calf, that is, at three or four centimetres length, I have not been able to perceive the "plaques" of the amnios. Perhaps, then, the glucogenic cells may be found in the umbilical vesicle.

characteristics of the glucogenic cells. At that epoch the tissue of the liver shows not the least trace of glucogenic matter.

At the end of their period of growth, when the glucogenic cells of the amniotic "plaques" commence to disappear or degenerate, it is found that in the liver of the fœtus, the cells having acquired the definitive form of the cells of the liver, inclose one or more nuclei with their granulous contents, which are not soluble in the alcoholic solution of potash, and they take the *wine-red* color of the iodine after the alkali has been saturated with acetic acid. It is at this epoch that the glucogenic matter can be extracted from the liver of the fœtus, which has become more firm, exactly like that found in the liver of the adult.

Later still, when the "plaques" have completely disappeared, or have entirely degenerated into fatty matter, and the fœtus is near the period of birth, it is found that the tissue of the liver, which has become as firm as in the adult, is composed of the anatomical elements which have taken their definitive form. All the cells of the liver are then filled with glucogenic matter, which can be extracted in as great abundance as from the best-fed adult animal.

From the summary of all the facts contained in these experiments the following conclusions may be drawn:

First.—There exists in the placenta of the mammiferæ* a function which until now has been unknown, and which seems to supply the glucogenic function of the liver during the first period of embryonic life. This function is located in an anatomical element, glandular or epithelial, of the placenta, which in certain animals is found mingled with the vascular portion of that organ, and which in the ruminantia presents itself separately, forming upon the amnios, plaques in appearance epithelial, which without doubt everybody has been able to see, but of the use of which, until now, they have been ignorant.

Secondly.—This temporary hepatic organ of the placenta, in permitting the direct study, in an isolated anatomical element, of the production of glucogenic matter, confirms and proves by a new example what I have before declared, that is, that the formation of the starchy glucogenic matter takes place both in the animal and vegetable kingdoms. The observations in this paper furnish us with still more strik-

* In birds (the hen) I have proved the existence of the glucogenic cells which develop themselves in the walls of the gizzard before the development of these cells in the liver; but not having been able to follow completely their evolutions, I will treat that subject in another communication, confining myself at this time to the mammiferæ.

ing analogies; since we see the starchy glucogenic matter accumulate around the embryo animal, just as in plants we see it accumulate in grains around the embryo plant.

Thirdly—The glucogenic function commences from the commencement of foetal life, and before the organ which is the seat of that function in the adult is developed. But it is located in a temporary organ belonging to the appendices of the foetus.

Fourthly—All that has been said in this paper relates only to the glucogenic function of the liver. But now the question would be, whether the biliary function which the liver possesses in the adult is equally accomplished by the hepatic organ of the placenta, as we have described. The question should be stated in these terms: to know if the glandular cells are charged with two functions, which for the time are connected, and answer one for the other; or if, on the contrary, the liver should not be considered rather as a complex organ, in which are found mingled distinct anatomical elements, the one destined to the formation of starch, and the other for the formation of bile. This question, which up to the present time anatomists have not been able to solve, in spite of the numerous works of which the liver has been the subject, seems to me to be susceptible of enlightenment, and even of decision by physiological researches, made on the one hand upon the embryonic development of the function, and on the other upon the inferior animals. I have undertaken experiments on this subject, of which I will render an account to the Academy as soon as they are completed.

The Medical Practitioners of Ancient Rome. By E. R. PEASLEE, A.M., M.D.

The adage, "*nusquam medicina non est*," implies that there never has been a nation or tribe in which the practice of medicine has not, in some form, at all times obtained. But, on the other hand, much stress has been put upon the assertion of Pliny the elder, who wrote A. D. 78, that during the first six hundred years after its foundation, or up to B. C. 153, Rome had no physicians.

Pliny's assertion, however, if correct, does not disprove the adage so far even as Rome was concerned; for there has always and everywhere been much medical practice, independent of physicians; and we have no reason to doubt that the sick were treated and taken care of at Rome, from its very foundation, by those best qualified for this of-

fice. In regard, however, to the advent of physicians, properly so called, to Rome, Pliny must have been mistaken.

Two circumstances are calculated to invalidate Pliny's statements on this subject:

1. Pliny was not a medical man, but a laborious compiler of various departments of knowledge; his "Natural History," consisting of thirty-seven books, treating of cosmography, astronomy, geography, physics, agriculture, commerce, the useful and fine arts, the moral constitution of man, the history of nations, natural history proper, and medicine. He is said to have condensed his materials from more than two thousand authors, and from the reading of his whole life.* But he, like many others of his countrymen, cherished a strong prejudice against the medical profession, and hence his testimony must be accepted with some degree of allowance.

2. The authority of Cato the Censor, who wrote about B. C. 170, or about two hundred and fifty years before Pliny, is mainly relied upon by the latter, in his statements respecting the medical profession in Rome. Cato, however, wrote not long after the time when physicians first came to Rome from Greece, or about the year of the city 583; and he manifested a violent hatred against the whole medical profession. Medicine had been first practiced at Rome under the patriarchal form; the oldest and best instructed of the relatives treating the diseases of his family as he understood them. Old Cato himself had been much interested in this domestic medicine, and had even written a book on the subject, in which he recommended cabbage as a sovereign remedy in many cases. He also venerated the number three, after the manner of the Pythagoreans; and transmitted to posterity an incantation for curing a dislocation or a fracture, which is too curious to be lost. "For curing a luxation of the hip," says he, "take a divining-rod, four or five feet long, split it in the middle, and let two men hold it at the hip and begin to sing: '*In alio, s. f., motas vœta daries dardaries astataries dissunapiter,*' until the injured parts are united. The luxation being reduced, or the fractureset and properly adjusted in splints, repeat the incantation every day as at first, or the following: '*Huat hanat huat ista pista sista dominabo damnaustra;*' or, after this manner: '*Huat haut haut ista sis tar sis ardanabon dunnaustra.*'"—WATSON: from Cato de Re Rustica, Cap. clx.

It is very natural that a person in this state of mind should conceive a violent antipathy for any attempt at scientific practice, and especially if made by foreigners, professing a superiority to the method

* Dr. J. Watson: "The Practice of Medicine in Ancient Times," p. 139.

then in vogue. There are narrow-minded and bigoted persons at the present day, also, among the educated, as they are self-styled, who denounce everything that is really scientific in medical practice, and laud some one of the various phases of quackery instead; and who would speak of the present race of physicians very much in the style in which Cato denounced the doctors of his time, in a letter to his son Marcus, and from which Pliny makes a quotation: "I will tell you," said he, "when I have an opportunity, what I think of these Greeks. It is good to study, to some extent, their letters and sciences, but it is not necessary to learn them fully. Be assured, as if a prophet had told you, that, as soon as this nation shall have communicated to us its literature, it will spoil and corrupt everything; and this will be so much more easily effected, if it sends us *also its physicians*. They have sworn among themselves to kill all barbarians by their medicine, and yet they require pay from those whom they treat, in order to gain their confidence, and thus ruin them more easily. They are insolent enough to call us barbarians, and even treat us more disdainfully by calling us *opiques*. In short, remember that I have forbidden you to employ physicians."*

In the 5th chapter of the 29th book, Pliny expresses his own opinion of medicine, as follows: *Mutantur ars quotidie, toties interpolis et ingeniorum Græciæ flatu impellimur: palamque est, ut quisque inter istos loquendi polleat, imperatorem illico vitæ nostræ necisque fieri: ceu vero non millia gentium sine medicis degant*. "The art is changing daily, assuming a new dress as often as we are carried away by some new-fangled notion from Greece; and when one of these fellows gains an ascendancy by his talking, he becomes on the spot an arbiter of life and death to us; as if thousands of nations do not get along without doctors." It must be admitted, that this last sentence contains a somewhat random assertion; and it is in the same passage that he says that the art was not practiced among the Romans until the six hundredth year from the building of the city, or B. C. 153.

But though the old censor's mind was too full of prejudice and suspicion to admit of his being a reliable witness as to the merits of the physicians of Rome, he leaves us no doubt of the fact that physicians were engaged in practice there before the time specified by Pliny. In fact, Pliny himself says, (chap. 6, of book xxix,) that a surgeon came to Rome in the five hundred and thirty-fifth year after its foundation, and that he received a most cordial welcome at first; but shortly, from

* Cato, De Re Rustica. Renouard's Hist. of Med., p. 249.

his cruelty in cutting and burning, they called him a butcher, and his art a nuisance.

It is, however, very probable that both Cato and Pliny were not very much in the wrong in attributing to the foreign doctors in Rome a low degree of actual professional merit. It very seldom happens that the best physicians leave their native country, since such are always sure to be appreciated and required at home. And at this time, and long afterwards, as Galen informs us, those who flocked to Rome from Greece and elsewhere, were mostly fifth-rate doctors, or miserable mountebanks. It is said that even Asclepiades himself, the friend of Cicero, and who settled in Rome B. C. 63, descended to some of the low methods of quackery; and long after him, Thessalus, when he appeared in public, was always accompanied by a troop of bakers' boys, butchers, weavers, carders, and others of the lowest classes, whom he called his pupils, and whose vulgar language he used. He was, however, patronized by the Emperor Nero, and acquired immense wealth.

Galen explains the fact, just stated, in the following passage, and it is now as applicable to New York as it was 1,700 years ago to Rome: "In a vast and populous city, like the capital of the Roman Empire, it is easy for a stranger, and even for a citizen, to conceal his name, his birth, his fortune, and his conduct. A man is only judged by the luxury he displays and the arrogance he exhibits. If accidentally he is discovered, it will suffice him to change the location; while in a small town, all the inhabitants know each other; a man's relatives and education are so well understood that fraud is impossible."

And among the various forms of charlatany in those days, the water doctors also flourished. The system of Thessalus was overthrown by Crinas, of Marseilles; and after the latter, says Pliny, (chapter 5th of book xxix.,) there came along one who entirely outshone all preceding hydropaths. "Condemning all former physicians, and the baths then in use, he persuaded his patients to use cold water during the rigors of winter. He plunged sick people in ponds. We have seen aged consular gentlemen freezing themselves from sheer ostentation. We have also Annæus Seneca's* personal statement in proof of this. Nor is there any doubt that these fellows, seeking fame by any form of novelty, would in a moment sacrifice our lives for lucre."

There is no reasonable doubt, therefore, that Rome had her physicians at least more than half a century previously to the time speci-

* Letters to Lucilius, 53 and 83.

fied by Pliny. But in order to settle this question independently of history, I some time ago consulted the Latin poets, expecting that, since dramatic poetry finds most of its inspiration in the pleasures and pains of daily life, I should find in the Latin comedies some allusion to the early physicians of Rome. And not to adduce other authors and other allusions, I find that in two of Plautus' comedies—*Amphytrion* and *Epidicus*—the doctors' shops are spoken of in connection with the barbers' shops; "*medicinis*" and "*tonstrinis*" being the terms used. In another of his pieces, entitled "*Aulularia*," I find a line demonstrating the fact that about the year of Rome 560, there were persons called doctors, who prescribed for a fee. It is this:

"Numo sum conductus, plus jam medico mercede est."

A learned commentator, (M. J. Naudet,) shows that "*numus*" means a "*didrachma*," (two drachmas,) or about 32 cents. "*Numo sum conductus*," *I am responsible for 32 cents*; and the whole line may be rendered: "*They have lent me 32 cents—not enough to pay the doctor.*" If we suppose that three drachmas only, instead of two, or 48 instead of 32 cents, was the doctor's fee, and remember the comparative value of money, then and now, we need not wonder after all, that some of our confrères of those times got rich, and even possessed slaves; as is said in a comedy, entitled "*The Captives*," to have been the case with a Doctor Menarcus.* I premit similar illustrations from other poets, but shall, I trust, be pardoned for adducing from Plautus a pun at the expense of our fraternity. In the little scene of "*Rudens*" two slaves exchange the following pleasantries:

"Ut vales?" "How are you?"

"Quid tu, num medicus quaeso es?" "What is that to you? are you a doctor, pray?"

"Imo, edepol, una littera plus sum, quam medicus." "Yes, by Pollux, and one letter more than a doctor."

"Tum tu est mendicus." "Then you are mendicus, (a beggar,) and not medicus."

"Tetigisti acu." "You have hit it."

The facts, then, in respect to the medical profession in ancient Rome are simply these: For a long time after its foundation, medicine was practiced at Rome under the patriarchal form, as before explained. In the time of Caius Marius, however, the city had become well supplied with physicians. But Asclepiades was mainly instrumental (B. C. 63) in introducing scientific medicine, as then understood by the Greeks, and as laid down especially by Hippocrates nearly 300 years before. Meanwhile, of the native Romans,

* Menière, *Etudes des Poètes Latins*.

only slaves, male and female, were physicians at Rome; and this continued to be the case till Cæsar decreed to all who practiced medicine the rights of citizenship. It is, therefore, not strange that the low social rank of the early Roman physicians prevented them from gaining a conspicuous place in history. In Athens, on the other hand, it was forbidden by law that a slave or a woman should practice medicine; and thus a dignity was imparted which secured its transmission to succeeding times.

Galen came to Rome, from Alexandria, then the best school of medicine in the world, in A. D. 159, being 28 years of age. But he met with so much opposition from professional brethren, whom he in turn denounced as ignorant quacks, that he returned at the end of five years to Pergamus, in Asia Minor, his native place. He was, however, soon recalled, to attend the Emperors Marcus Aurelius and Lucius Verus; and having cured the two sons of the former of fevers, which the other physicians had predicted would prove fatal, he attained a distinction which enabled him to defy the power, and finally to ruin the credit of his former opponents. His writings were regarded as the supreme authority in medicine, and especially in anatomy, for 1,400 years after, or till Vesalius published his work on the structure of the human body, in 1543; and in the practice of medicine his authority was not materially shaken till a century later, and when the importance of Harvey's discovery of the circulation of the blood began to be appreciated.

It requires a great mind to appreciate the true dignity and value of our art. The rights accorded to practitioners of medicine by Cæsar, were therefore confirmed by Augustus, Vespasian, and several succeeding emperors. Augustus loaded his freedman, Antonius Musa, with wealth, for having cured him of a dangerous illness; raised him, by consent of the Senate, to equestrian rank; erected a bronze statue to his honor, near that of Æsculapius; and at his instigation conferred important privileges on the whole body of the profession residing in the city.—(Watson, p. 98.) Subsequent emperors did not, however, adopt the liberal policy of their predecessors. Nero patronized the audacious and vulgar Thessalus, and we find that within three centuries after the time of Galen, the practice of medicine had again fallen mostly into the hands of slaves; and that the Code of Justinian, promulgated about A. D. 500, fixed the legal price of physicians, male and female, at 60 solidi, or \$257.12.

Thus Rome constituted no exception to the adage with which this article commenced, and Pliny was simply mistaken in his date; being

led into the mistake by his prejudice against the profession, and the desire to show that the class of educated physicians is of very little importance to the commonwealth.

The Chemical Composition of the Ash from Hair. From the French of Baudrimont.

Vauquelin established by his experiments, in 1806, the following conclusions:

1. Black hair is formed of an undetermined animal substance, a white concrete oil, a greenish black oil, iron, some atoms of manganese, phosphate of lime, carbonate of lime, a notable quantity of silica, and a large amount of sulphur.

2. Red hair only differs from black in its containing a red oil, instead of one of a greenish-black color.

3. The difference between red and black hair and light-colored hair consists in the fact that the latter contains an oil very slightly colored, and some phosphate of magnesia.

In this view, the white color which the hair assumes, with age, is occasioned by an absence of the black oil, of the sulphide of iron, or from a defective secretion of the coloring substance.

Van Lær endeavored to determine the nature of the organic matter which forms the principal substance of the hair. He considered it as formed of fibres or compound threads, consisting of one atom of protein and two of sulphur, intimately united, just as the fleshy fibres are by cellulose, with a substance analogous to gelatinous tissue, whose formula, $C_{13} H_{20} N_6 O_5$, differs only from that of gelatine in having one equivalent more of nitrogen. In examining the ash resulting from the incineration of hair, Van Lær detected chloride of sodium, sulphates of magnesia and lime, phosphate of lime, sesquioxide of iron, and a small quantity of silica. He affirmed that the hair did not lose its color, neither in alcohol, ether, nor in the Digester of Papin; and that he had not been able to extract the different colored oils, noticed by Vauquelin.

This last conclusion, so different from that of Vauquelin, induced Baudrimont to undertake the investigation of the subject. He examined successively the ashes of white, flaxen, red, auburn and black hair. The results of his analyses, given in the following tables, are very curious. It is to be considered, however, that the ash of each particular color only being made the object of *one* analysis, it is diffi-

cult to draw any general conclusions as to the comparative composition.

Composition of 100 parts of the Ash of different colors of Hair.

	White.	Flaxen.	Red.	Auburn.	Black.
Sulphate of soda	22.082	33.177	18.435	42.936	59.506
“ potassa.....	1.417	8.440	7.542		
“ lime	13.576		
Carbonate soda	10.080
Chloride sodium	Traces.	Traces.	0.945	2.453	3.306
Carbonate lime.....	16.181	9.965	4.033	5.600	4.628
“ magnesia	5.011	3.868	6.197	4.266	2.809
Phosphate of lime	20.532	9.613	10.296	10.133	15.041
Sesquioxide iron.....	8.838	4.220	9.663	13.866	8.099
Silica.....	12.803	30.717	42.879	10.666	6.611

Amount of Sesquioxide of Iron in 100 parts of Ash.

Gray.	Bright flaxen.	Flaxen.	Mixed.	Auburn.	Brown.	Dark Brown.
4.155	2.403	4.981	5.402	5.830	6.395	3.413

Amount of Ash in 100 parts (by weight) of Hair.

Flaxen.	Red.	Black.	Auburn.	White.
0.474	0.421	0.39	0.258	0.266

In studying these tables, it will be remarked that the quantity of ash furnished by the different colored specimens of hair differs singularly; that the flaxen gives the largest proportion, 0.47 in the hundred, while auburn and white furnish only 0.26; and that the salts of lime, such as the sulphate, carbonate and phosphate, are found in a much larger proportion in the ash from white hair, than in that from any other color, and that sulphate of lime has only been detected in the former. In fact, in white hair, the amount of lime-salts forms one-half of the ash by weight, while in the other colors it does not exceed one-fifth. This is remarkable, but to have a permanent value it must be confirmed by numerous experiments.

The comparison of twelve analyses shows that the sesquioxide of iron is generally found in a little larger proportion in hair of a dark color, than in that of a lighter shade. Baudrimont wishes to make

this the basis of a general theory, so that the color of the hair should be considered as due to compounds, in which iron plays the rôle of the coloring principle, as in the hæmatosine of the blood, the intensity of coloration of which is proportioned to the quantity of iron it contains. His results do not, however, justify such a conclusion. In examining them, we shall find that Baudrimont, in the ash of auburn hair, detected the largest amount of sesquioxide of iron, and that no such theory as he suggests can yet be adopted. His researches, however, put us in possession of the most reliable information yet furnished on the composition of the hair. A continuation of the investigation will probably lead to the formation of a probable theory as to the true cause of color in the hair.

L. H. S.

Poisoning by Camphor. From the French of DR. LECOCQ.

An infantry soldier, twenty-six years of age, was under treatment for simple urethritis, but becoming impatient at the slowness of his convalescence, he determined to treat himself; using, according to the advice of his comrades, camphor, of which he ate a piece the size of his thumb, every morning, fasting. A piece of the same size weighed over fifteen grammes, and this was eaten in an hour.

The first three days furnished no unpleasant symptoms; all the vital functions were performed in the most perfect order; the erections were temporarily checked, although the blennorrhagic discharge was not altered. The fourth day he experienced some painful sensation in the stomach, with a feeling of weight in the epigastrium during digestion, but these were so slight as not even to attract any serious notice. On the fifth day, observing no diminution of the urethral discharge, he concluded he could safely double the dose that he had taken with impunity for four days. *Thirty grammes* were accordingly taken that day, at two periods: one half in the morning, fasting, and the other half at 8 o'clock, three hours after his dinner. The morning dose produced no sensible effect. Immediately after the dose in the evening, however, he retired and slept, as usual, very quietly, when about 11 o'clock he was aroused by the odor of camphor, which was becoming stronger with each expiration—an odor which was unsupportable to him, and which nothing could remove.

At the same time he experienced sharp pains in the epigastrium, with a very painful sensation of burning in the region of the stomach; pain in the head, as though it were pressed in a vice. He was forced

twice to go out and drink freely of water, not so much to alleviate thirst as to free himself from the odor of camphor, which annoyed him more and more. Soon he was seized with vertigo, and then with the continuous desire to walk, without special design. Like one intoxicated, he could scarcely keep on his legs; but in spite of this he was obliged to descend again to the court to give his lungs the fresh air which they so imperiously demanded. He ascended to his chamber, with the aid of his comrades, and fell like an inert mass upon his bed, in a state of complete insensibility. His extremities were cold, face pale, body agitated with convulsive movements; towards midnight the symptoms became so violent that he was removed to the hospital.

In the hospital, the convulsive movements reappeared at irregular intervals, there was complete insensibility to external impressions, and loss of consciousness. The pupils were dilated; pulse, at first 72, descended to 60, and afterwards reached the minimum of 50; the respiration was accelerated to 22 inspirations per minute. The patient was treated with frictions, and caused to vomit; cold compresses were applied to his head, and sinapisms employed on the lower extremities. A semi-liquid filamentous substance, containing some pieces of bread, and exhaling a strong odor of camphor, was thrown up by the vomiting. This odor was so strong in the ward, as to be offensive to the other patients.

The emesis caused the most alarming symptoms of intoxication to cease. At the end of a half-hour of active treatment he awoke, surprised at finding himself in the hospital ward, and furnished all information desired, as to the cause of the poisoning. He had great desire to urinate, without the ability of satisfying it.

During the day which followed the accident, although out of danger, he suffered from an almost irresistible desire to sleep, and slept for twenty-four hours, only arousing himself from sleep to answer questions, or to take food. Forty-eight hours after his entrance in the hospital he was entirely convalescent, having no other symptoms of poisoning than slight weariness and general *malaise*, with pains somewhat acute in the renal region. Two months after the accident there is slight dyspepsia, very violent pain in the lumbar region, and an inability to undertake his regular duties.

L. H. S.

Late Researches on the Atmosphere.

The activity of chemistry, in its examinations of the accidental and essential constituents of the atmosphere, has been very great during the past year. We propose throwing together some gleanings from French and English journals on the subject, that will be of interest in a hygienic point of view.

Iodine in the Atmosphere.—Bouis has detected iodine in the rain-water of Paris during the months of April, May, June, July, and August. Since it is the opinion of some medical men that the iodine contained in the air is not without some influence on public health, Bouis considered it a matter of importance to determine in what condition it existed in the atmosphere. The solution of this question is a very complicated matter, and he has made many fruitless experiments; but the results are so interesting that they are worth publication.

Being of the opinion, advanced by Chatin, that iodine is in a free state in the air, he endeavored to detect this substance, in the first products, in the distillation of rain-water; but he discovered that it remained in the residuum of the distillation, and, as rain-water always contains ammonia, he supposed that the iodine would be found in it as iodide of ammonia—a compound only slightly volatile. But the use of perchloride of iron showed that the iodine, in a large number of cases, was associated with organic substances that concealed its presence. If rain-water contained iodine in a free state, distillation alone would eliminate it; or if the iodine was in the condition of an iodide, the addition of perchloride of iron would make its elimination easy—but this is rarely the case.

In treating rain-water with perchloride of iron very slightly acid, brownish flakes are formed, resembling crenate of iron, in which case iodine cannot be determined in the products of the distillation; but if, after such treatment, the ochreous deposit be calcined, in the presence of carbonate of iron, the organic matter is destroyed, and then it is an easy matter to detect the iodine.

Bouis concludes that iodine is found in rain-water, sometimes in the condition of iodide of ammonium, but most frequently in combination with organic substances.

Atmospheric Ozone.—Dr. Moffat read a paper on the subject, at the meeting of the London Meteorological Society. He stated that a slip of paper moistened with iodide of potassium and starch becomes brown after exposure to the air, but after a longer exposure it lost this color; that if suspended over a cesspool the brown discoloration would not be produced, and if a brown slip were suspended over a cesspool it

would also lose this color. "In these results," the author observes, "there are proofs of three distinct agents: one, ozone, which decomposes the iodide of potassium; the iodide being set free, produces the brown color. The second, sulphuretted hydrogen, the hydrogen of which removes the brown color by combining with the iodine, and forming hydriodic acid. The third, incompletely oxidized substances, the products of decomposition of animal and vegetable matter, which are more easily oxidable than the oxide of potassium." "As the products of putrefaction and combustion are formed at the earth's surface," Dr. Moffat concludes that, "the quantity of ozone must be greatest in the lowest strata of the air, and that consequently the quantity of ozone must *there* be at its minimum." He also states that where the air is stagnant ozone is at its minimum; and that as the north current is the lower stratum of air in motion, it is the minimum ozonic current, while the south current, being the higher air in motion, is the maximum.

The north current is the "death current," the south that of "sporadic diseases." The deadly effects of a calm are attributed to a concentration of the products of the decomposition of animal and vegetable substances, which substances are made innocuous by ozone, since it oxidizes them. In calms, fevers and cholera prevail, and the type depends on the degree of concentration of poison. Dr. Moffat has seen "an epidemic commencing with scarlatina run into typhus, and terminate in a disease of choleraic type, rapidly decline after cleansing and draining. We have no power over the winds, but he believes that if a south or ozoniferous current could be directed into 'fever-nests,' or into cholera localities, these diseases would vanish; and in proof of the correctness of this opinion, mentions that cholera declined at Newcastle in 1853, and in London in 1854, after the setting in of the ozoniferous current."

Mr. H. S. Eaton read a paper at the same meeting of the Meteorological Society, showing, from tables, that "ozone was prevalent to the largest extent when the direction of the wind was between the south and west points of the compass, and when the amounts of rain and cloud were greatest; and that the least amount of ozone was coincident with winds having a northerly and easterly direction, and with the least amount of cloud and rain." These results, it will be observed, agree, in the main, with those of Dr. Moffat.

Measurement of the Variable Intensity of Ozone.—Dr. Lankester has devised an instrument for this purpose, composed of two cylinders, contained in a box, on which is wound a band of prepared paper.

The arrangement is set in motion by ordinary clock-work. As the band leaves the one cylinder it is wound up by the other, and the arrangement is so managed that but a small portion of the paper is exposed at any time to the action of the air. The whole band is divided into 24 parts, corresponding with the hours of the day. The quantity of ozone which the atmosphere contains at different periods of the day is thus indicated by the different coloration of the divisions.

L. H. S.

Treatment of Vertigo from Gastric Derangement. From the French of TROUSSEAU and BRETONNEAU.

In the morning the patient should take a cup of a solution of *quassia amara*, made by macerating two grammes of the chips for 12 hours in a cup of cold water. The following should also be taken:

R.—Sodæ. bicarb.

Cretæ. ppt.

Magnesiæ ää grs. xv.

Mix, and divide into three powders, which should be taken two hours after each meal, in a half glass of sugar water, the third being taken at the time of going to bed. As long-continued use of magnesia may produce looseness of bowels, the use of the alkaline powders should be suspended from time to time, so that they should be given for six consecutive days, and then resume their use for an equal length of time, after a cessation of eight or ten days. In the interval the patient should employ natural mineral waters, such as those of Vichy, Pougues, Vals and Ems, which are principally active on account of their alkaline constituents; or such as those of Bussang, Schwalbach, and Sultzbach, which owe part of their action to these substances, and most of it to the ferruginous principles they contain.

To excite the appetite, and to stimulate the contractility of the muscular fibre of the digestive apparatus, it is well to have recourse, from time to time, to the properties of strychnine. This may be given in solution, or in the form of pills of the extract of *nux vomica*, beginning with a dose of 0.05 centigrammes, which may afterwards be slightly increased.

The hydropathic treatment, at home, with cold lotions, or wet cloth, is in a large number of cases of undoubted utility. Above all things is it necessary to insist upon a substantial tonic regimen, moderate exercise, and everything that can favor nutrition. The use of pepsin, in the form of *pastilles*, seems also indicated in such cases. L. H. S.

PROCEEDINGS OF SOCIETIES.

Academy of Medicine.

DR. S. ROTTON PERCY, one of the Committee appointed by the Academy of Medicine to investigate the subject of city milk, presented to that body, at its session on the second day of March last, a long and valuable report.

Of this report, so interesting from the nature of its subject, and so rich in its details of fact and scientific investigation, we make the following abstract :

The first obvious duty of the Committee was, by visiting the city stables, to ascertain the facts in relation to the keeping and condition of the cows, whose milk was to be the subject of inquiry. In pursuance of this line of observation, it was found that, with the exception of one stable, the amount of space allowed each cow was about three feet in width by eleven feet in length and eight feet in height; that the ventilation was badly regulated and insufficient, and that light was almost wholly excluded. The stables, though as clean as their construction and mode of occupation would permit, were found offensive in the extreme.

Swill, steaming hot and always sour, is given two or three times a day; the amount consumed by each cow being from thirty to forty gallons a day. Two of the Committee, experimenting upon this swill, drank about a wineglassful directly as drawn from the tank, and suffered therefrom, in about two and a half hours, a painful and griping diarrhoea. A little hay is given the cows in addition to the swill, and when "drying up," as it is called, a little meal or bran, to fit them for the butcher. The stable life of a cow lasts from about nine to twenty months, during which time they never leave their stalls, and have no other drink but swill. They are milked twice a day, and yield, according to the statement of owners, about an average of six or seven quarts of milk a day. Their number, in stables in New York and Brooklyn, amount to about three thousand; and counting those kept near these cities, fed on swill and brewers' grains, this number would be greatly increased.

The owners state, that the principal diseases from which these cows suffer, are "sore feet" and what they call "cow fever." This last appeared first in 1847, as an epidemic, and prevailing more or less since, attacks about one-third of the animals entering the stables. The in-

dications of the disease are, dullness of the eye, dryness of the nose, loss of appetite, partial suppression of the milk, diarrhœa, scanty and high-colored urine, offensive breath, and a tight, hard skin, the animal becoming, as it is called, "hide-bound." With the progress of the disease the belly swells, the respiration becomes more hurried and feeble, the strength gradually fails, until, at length, the animal is unable to rise. Some cases are fatal in within three or four days, while some last as many weeks. *During the whole period of their sickness these cows are milked, and their milk mixed with that of the other cows.*

Inoculation in the tail, with matter from the lung of the cow dying from the above-described disease, prevents, it is thought, the occurrence of the so-called "cow fever." It runs its course in from nine to twenty days, is attended with great inflammation of the tail, which, if it extends to the spine, is nearly always fatal.

These cows are milked during the progress of the inoculation, and their milk mixed with that of the other cows.

The author of the report is satisfied that the disease of which the majority of these cows now die is essentially different from the contagious epidemic of 1847, and that inoculation is a needless piece of folly. The symptoms now are mostly those of typhoid pneumonia, aggravated frequently by the inoculation, and caused by foul air, want of exercise, sunlight, and proper and nutritious food.

Observations upon the temperature within these stables, made in the months of July and August, indicate a range from 18° to 24° higher than that of the open air. The same great difference also exists during the winter months, with a saturation of the air with moisture even greater, if possible, than in summer.

The respiration and pulse of the cows, depending upon the high temperature of the air, saturated with moisture and loaded with animal effluvia, were found greatly to exceed the normal standard. The lowest number of respirations observed in any animal during July and August, in the inner part of the stables, was 44 in the minute, with a pulse of 114. Normal respiration should be 20 in the minute, and the pulse about 80. There can be little doubt that the heated and foul air which these animals breathe has even a greater influence in making their milk unwholesome than the food they consume.

The average mortality of these cows, so far as could be learned from one disinterested source, was about twenty per cent. per annum.

No opportunities were afforded for making post-mortem examinations, and, consequently, the Comité regret that their report does not contain a description of the usual pathological appearances presented by these cows after death.

Taking Professor Doremus' analysis of the "swill feed," and Bousingalt's of corn, and estimating 18 lbs. of corn, with a little straw, daily, sufficient to keep a cow in good milk and gaining in flesh, it appears that, in order to reach an equivalent to 18 lbs. of corn meal in nitrogenized food, the cow must consume $40\frac{1}{2}$ gallons of swill; in oleaginous food, 30 gallons of swill; and in non-carbonaceous food, 161 gallons of swill.

It also appears from Prof. D's analysis, that in the amount of swill usually consumed daily by each cow, there is contained about *one gallon of vinegar*.

Numerous specimens of milk, obtained from milkmen in the city, whose supply in some cases was known to be from the country, and in others unknown, exhibited under the microscope no abnormal characters, excepting their dilution with water, and in some instances a strong tendency on the part of the fat globules to cohere.

In one instance, however, the milk from a cow met with in a stable at Williamsburg, presented under the microscope, two hours after being drawn, decided pathological appearances. The butter globules were unusually small and coherent; a number of large granular-looking corpuscles of a green color being present, together with others of about the same size, of a yellow color, having dark lines radiating from their circumference towards the centre. Also minute bodies like sporules of confervæ—also exceedingly minute bodies, in masses, which were undoubtedly diseased, dead, and broken-down globules. Examined sixteen hours subsequently, the sporules were found increased in length; the butter globules less coherent; the broken-down globules were numerous and scattered, and a peculiar reddened mass met with, which was supposed to be some portion of a diseased mammary gland.

The cow from which this specimen was procured was the only one met with by the committee suffering from disease of a strongly inflammatory type. The others that were found diseased were in a typhoid condition.

Another sample, obtained from the mixed milk of 20 or 30 cows from the same stables, examined two hours afterwards, was found to contain blood corpuscles; granulated pus corpuscles; butter globules of uniform size, coherent and overlapping each other; broken-down globules, and long narrow confervæ.*

* In regard to these confervæ, the author of the report thinks they are peculiar to the milk, and inhabit the imperfectly washed cans, and grow rapidly upon the addition of the warm fresh milk. Lehmann speaks of infusoria, or

Another sample of milk, drawn from one of the fattest cows in the distillery stables in 15th Street, exhibited larger and more numerous globules than usual, with the same cohesive tendency before remarked.

Representations of the microscopical characters of these different specimens of milk were exhibited to the Academy.

The chemical analyses of the different specimens and kinds of milk mentioned in this report were made by the author, within twenty-four hours of the milk being drawn. The quantity operated upon was seldom less than 1000 grains.

ANALYSES OF COWS' MILK.

ANALYZED BY	Water	Solid Matter	Butter	Sugar	Casein	Saline Matter
POGGAILE.....	\$62.8	137.2	43.8	52.7	58.0	2.7
DOREMS—From Mr. Suydam's cow, kept for family use.....	\$52.60	147.40	44.00	39.70	57.10	6.60
From swill-fed cows, kept in 16th Street Distillery.....	\$58.60	141.40	44.20	17.90	70.80	8.50
PERCY—From one of the fattest cows in the same place.....	\$58.0	142.0	44.0	18.0	66.0	14.0
From a grass-fed cow in Westchester County.....	\$68.0	132.0	44.0	46.0	39.0	3.0
From 4 cows, kept at the Williamsburg Distillery.....	\$70.0	130.0	35.0	15.0	68.0	12.0
From the same, obtained from the man, while delivering to customers.....	924.0	76.0	19.0	10.0	36.0	11.0
From the same, taken from large cooling cans immediately after milking.....	\$69.0	131.0	31.0	17.0	70.0	13.0
From the same stables, obtained from the man while delivering to customers.....	920.0	70.0	18.0	8.0	34.0	10.0
From the 39th Street Distillery Stables, from the cooling cans, immediately after milking.....	\$68.0	132.0	30.0	18.0	70.0	14.0
From a dealer (Decker) in East 27th Street, obtained while delivering, (country milk).....	\$56.0	144.0	47.0	48.0	43.0	6.0
Taken from a sick cow in Williamsburg Distillery.....	\$77.0	123.0	19.0	13.0	74.0	17.0
From 16th and 10th Street Distilleries, milked in presence of analyst (4 cows).....	\$67.0	133.0	34.0	18.0	69.0	12.0
From the same, obtained from the man, while delivering to his customers.....	923.0	77.0	20.0	10.0	37.0	10.0
From D. Baldwin, dealer, obtained while delivering.....	\$69.0	131.0	38.0	34.0	52.0	7.0
From J. Willets, dealer, obtained after delivery to a customer, (country milk).....	\$60.0	140.0	47.0	46.0	41.0	6.0
From 6 Alderney cows, J. T. Norton, Farmington, Conn.....	\$29.0	171.0	72.0	47.0	47.0	5.0
Gail Borden's condensed milk.....	\$78.0	422.0	124.0	157.0	131.0	10.0
ANALYSES OF CREAM.						
PERCY—J. T. Norton, Farmington, Conn.....	364.0	636.0	568.0	28.0	38.0	2.0
Husted's Distillery.....	494.0	506.0	311.0	19.0	165.0	11.0
Gail Borden.....	490.0	510.9	424.0	38.0	42.0	6.0
ANALYSES OF WOMEN'S MILK.						
PERCY—A lady suffering with ague in the left breast—from the right breast (healthy) alkaline.....	\$96.0	104.0	22.0	61.0	19.0	2.0
From the left breast (ague) milk acid.....	918.0	82.0	10.0	24.0	41.0	7.0
From both breasts of a drunken woman—acid	920.0	80.0	11.0	22.0	39.0	8.0
From both breasts of a healthy woman—alkaline..	\$92.0	108.0	26.0	60.0	20.0	2.0
From M. R. S., (baby starving,) milk, alkaline	927.0	73.0	9.0	22.0	41.0	1.0

some of the lower forms of vegetation, being occasionally found in cows' milk, and especially in the so-called blue milk. And Fuchs, in his Manual of Physiology, refers this coloring of the milk to the presence of an infusorium, which he terms *vibris cyanogeneus*.

From these analyses, it will be observed that there is a much larger amount of saline matter in the milk obtained from the distillery stables, and from the milkmen, than from that obtained from reliable private sources. Farmers add a small quantity of bi-carb. soda to the milk sent to the city, to prevent it from souring while on the journey. This is a soluble salt; but the saline matters found in swill-milk are insoluble salts—an augmented secretion from the cows. These saline matters vary in quantity, too, in the milk procured from the distillery-fed cow, and in the same milk procured from the milkman. To the latter salt is added, to “sweeten the water” with which it is diluted by the milkman.

The milk obtained from women living in cellars and damp, dark apartments, exhibits an acid reaction; while the saline matters and casein are much increased, and the butter and sugar diminished in quantity.

Does distillery milk contain all it should to make it a healthy and nourishing food? Is it not contaminated with what should not be there?

Chemical analysis lends but little aid in detecting the peculiar changes in the milk of the mother, which result from fear or anger, or why those changes should affect the child; nor can it explain the reason why a thunder-storm should turn milk sour; but by chemical examination we find that the vital fluids of the body have certain well-defined elements, any great deviation from which renders them unhealthy, and unfit to sustain life.

The physiological action of the milk from diseased cows I have ascertained, by observation and careful attention to the little patients under my care, to be injurious, producing sickness and death; and that it is incapable of forming healthy tissues, or an active, vigorous nervous system.

A chemical examination of 200 samples of milk drawn from distillery-fed cows gave, in every instance, a *strong acid* reaction; while every sample obtained from healthy grass-fed animals gave a slightly alkaline reaction. The same result was observed with the milk of women examined with this object. Eleven nursing women living in dark, damp cellars, with insufficient air and bad food, presented milk giving a *strong acid* reaction; while the milk of a healthy woman, living rationally, is *decidedly alkaline*. Drunken women who nursed, and several cases of which were examined, always gave acid milk. A goat, while running loose in the upper part of the city, gave slightly alkaline milk. The same goat, after being confined for a time in a

dark, damp outhouse, and insufficiently fed, gave milk with an acid reaction.

Swill-milk, although acid when first drawn from the cow, does not become sour, in the usual acceptation of this term, as soon as milk from grass-fed cows, partly because it contains more salts, but principally owing to its great deficiency of sugar; when it does become sour, however, it very soon becomes putrid—much sooner than country milk under the same circumstances. The acid of new-drawn milk, just stated, is not perceptible to the taste, and must not be confounded with what is denominated sour milk. It gives an acid reaction, while milk from cows at pasture gives an alkaline reaction. Milk from healthy cows is acid when fresh drawn, only when it has remained a very long time in the mammary gland.

Milk from cows running at large and the milk from healthy women both being alkaline, it follows that this is the normal condition of this secretion; and whatever changes it to an acid state renders it unfit for food, and injurious to the infant, as abundant examples to be related prove.

Analysis of Butter.—Butter obtained from swill-milk is always very white, and if extracted from the milk or cream by the churn, always contains incorporated with it a large amount of casein. Owing to the presence of this casein, it very soon becomes rancid, and shrinks very much by keeping, as the water contained in the casein dries out. It is softer than country-made butter, its taste is sourish and curdy, and entirely devoid of the pleasant flavor of good butter. When the butter is extracted from the milk by ether, it is white, and softer than butter obtained in the same way from country milk; and even when exposed to the temperature of 60° F., there is considerable oily matter, which may be poured off.

Mr. Gobley has found in butter a peculiar substance of a phosphoric character, and named by him *lecithine*, analogous to the *acide oleophosphorique* of Fremy, obtained from cerebral fat. Using the same methods as laid down by Mr. Gobley for detecting this substance, no trace of its presence was found in the butter made from swill-milk.

Effects of Swill-Milk upon the Health of Persons using it.—The author of the report, in the course of his investigations upon this part of the subject, met with much difficulty in ascertaining positively those persons who were in the habit of using swill-milk. By the aid, however, of a policeman, detailed for this purpose by his Honor the Mayor of the city, he was enabled to trace the milk from the stables

to the residences of many families, where children were sick with various symptoms, which could only be attributed to the character of the food used. The history of several of these cases is given in full. We transcribe two or three entire, which will be enough to show the effects produced by the diet of swill-milk, and the good result of a change to the milk of pasture-fed cows.

C. G., a boy aged 16 months, had arrived, with his mother, in the city the morning I was called. Had vomited freely, the vomited matter consisting of milk, with a little mucus. The countenance was flushed and anxious, the pulse rapid and full, the skin hot, respirations frequent. Up to this time, the child had been perfectly healthy, his diet consisting entirely of milk. The mother had taken of the milkman who supplied the family where she was visiting in Forsyth Street, the quantity of milk she usually fed her child, which had been given to him; no other food had been taken.

I thought that I had a case of simple digestive fever, brought on by the fatigue of traveling; and, as the child had evidently not entirely unloaded his stomach, I gave an emetic, largely diluted with warm water. Free vomiting took place, of large lumps of curdy matter, with much relief to the child; after which, he slept for some time. On awaking, he had a large, loose, and very offensive evacuation, containing a quantity of undigested curds. I gave a dose of oil, with a few drops of laudanum, and directed that the child should be nourished on whey instead of milk. The next day the child seemed as well as usual, and the following morning the milk, diluted with water, was resumed. About 9 o'clock that evening I was called again, the child having vomited the milk about an hour after it was taken. It was restless and feverish after it had ejected all the milk. I ordered the whey to be again given, which was continued for several days, till the mother took him with her into the neighborhood of Washington Square. I saw the child the following morning, in West Waverly Place; it was then quite cheerful and comfortable, and had taken that morning milk and water without any ill effects. The child remained here some two weeks, entirely recovered its strength, and used milk undiluted, as before its arrival in the city. The mother then returned with the child to Forsyth Street, and it had hardly taken the milk supplied to this family an hour, when it was attacked with vomiting as before. The mother, believing that the milk was the cause of the symptoms, refused to use the milk supplied to the family where she was visiting, but obtained that supplied to the family in Waverly Place.

About a week afterwards I was called again, as the child was vomiting worse than before, the milk that it then threw up being much of it coagulated. This seemed to indicate that the milk was not the cause of the disturbance; but, upon inquiry, we found that the servant had that morning used the milk reserved for the child, supplying its place with the milk taken for the family.

It was found upon tracing the source of the milk, by means of the policeman employed, that the milk supplied to the family in Forsyth Street came from the distillery stables in 16th Street, and that of the family in Waverly Place came from the country by the Harlem Railroad.

This case occurred before the excitement in relation to swill-milk had directed public inquiry to the subject.

Susan C——, Elizabeth Street, aged 4 months. The mother of this child had obtained a situation as wet nurse, and put the child in the care of one of her friends. When I first saw this child she had been fed exclusively on milk, supplied from the Williamsburg distillery stables. The craving for nourishment was intense, the child consuming large quantities of milk at a time, and frequently screaming its demand for more. The abdomen was much distended; emaciation was great, and the child, though filling itself to its utmost capacity, was still gradually starving to death. A change of milk, with a little gelatine and sugar boiled in it, a teaspoonful of cod-liver oil, with three drops of the syrup of pyro-phosphate of iron, three times a day, soon restored the child to health and cheerfulness.

Two children in Avenue B came under the attention of the author of this report, who were badly broken out with eczema upon the face and behind the ears. They lived in the same house, and took milk from the same Williamsburg swill milkman. They recovered entirely, without medicine, upon a change of milk. The change in their spirits, animal vigor, and activity was as marked as that in their appearances.

Facts similar to those above given, showing the deleterious influence of milk of swill-fed cows upon the health of children were communicated by Drs. A. H. Stevens and R. S. Kissam, and embodied by Dr. Percy in his report.

It is not found that this milk, as given to children, actually in all, or many cases, sicken them at the time it is given, but the child, though inordinately voracious, is starved and poisoned by slow degrees. The nervous system becomes irritated beyond endurance, the vitality is undermined, and the child dies of marasmus, bowel complaints, cholera morbus, dropsy upon the brain, or kindred diseases.

The author of this report then proceeds to show separately the effects of an insufficient supply of air, sunlight, and proper food upon the animals confined in these stables, and how, almost necessarily, the milk secreted by them must be of an unhealthy character, and deleterious in its influence upon children fed upon it.

And first of *air*. Do these cows, confined in such numbers in these stables, obtain a sufficient supply of fresh air? A visit to these structures, and observations upon the atmosphere, oppressive from its warmth, its moisture, and foul condition, and a glance at the hurried respiration and quickened pulse of the inmates, must convince any one that a negative would be the true answer to this question. The air in these stables is not only deficient in oxygen, but abounds in unhealthy emanations from the bodies of the animals and the decomposition of the surrounding filth. If the blood be not properly arterialized at each inspiration, how can it become healthy, or properly perform its functions? If impure, how can healthy tissues be formed, or healthy secretions be produced, or how exert a healthy or proper influence upon the brain or nervous system?

And next of *sunlight*—which these animals never enjoy. No experiments are needed to prove that man and animals kept in the dark become scrofulous and weakly. Although animals may support an existence with an insufficiency of fresh air and absence of sunlight, it is quite impossible for them to be healthy and vigorous. Darkness alone will prevent a proper metamorphosis of tissue, will deprive the blood of its fibrine, and the nerves of their power, and will generate scrofula, because air in darkness is deprived of the very ray which gives vigor to the nervous system.

Of the Food.—In the manufacture of whisky, the starch and other hydro-carbonaceous materials of the grains used are extracted, so that the swill, as fed to the cows, is almost entirely deprived of these necessary elements of nutrition. Being so poor in the elements of food, it is taken in inordinately large quantities, which is the only way by which the animal can supply its wants. Fermentation at the same time has set in, destroying a great portion of its nitrogenized matters, forming, in addition, a new compound, acetic acid or vinegar, and which continues to increase in quantity, until it becomes so sour that the animals reject it.

The effect of insufficient air and light, and the innutritious character of the food, sooner or later tells upon the character of the cow's milk, so that the component parts differ materially from those found in pure milk from healthy and well-fed cows; not so much in the

amount of solid materials, for in these they are nearly equal, but in the relative proportions of the different elements. These have already been stated, as well as the constant acid reaction which swill-milk gives, whereas the normal state of pure milk is slightly alkaline. This acid condition of the milk must induce derangements of the bowels in those children who use it, and render them difficult of cure so long as they continue to use it. If the cow is in an unhealthy condition, the milk must partake of the morbid condition of the animal which secretes it, and produce in those children who feed upon it diseases proportioned in their severity to the morbid condition of the milk, or the feebleness or inability of the nervous system of the child to resist its baneful influence.

Swill-milk is deficient in many of the elements which are essential to the growth of the child. It has been seen that the microscope discovers that its vitality is lost soon after it leaves the animal. The peculiar phosphoric organic compound found in butter, and described by Gobley, Fremy, and others, is wanting in the butter prepared from swill-milk. Children, therefore, who live upon food wanting in this essential element of growth to the brain and nervous forces, will become languid, uneasy, restless, and devoid of energy; the functions of digestion and assimilation will be imperfectly performed, and growth retarded or perverted. Where there is an insufficiency of this nerve-force, there must be a want of vital energy, and life will eventually terminate from inanition or marasmus, preceded by weakened digestion, loss of heat, and inability of the whole system to bear the drain made upon it to keep up the vital heat and force, and accomplish the necessary change in the tissues.

Independent of its being in a diseased condition, swill-milk is deficient in both butter and sugar, two essential properties for the evolution and maintenance of animal heat. The processes for the proper evolution of vital heat being interfered with, the vigor and activity of the individual are diminished. This is the fact with those children which are fed upon swill-milk.

Dr. Percy closes his report with an extract from Dr. Cummings on "Milk," as follows:

"If, then, heat is to be evolved in sufficient quantity, we must have not only enough oxygen in the air, and enough oil in the blood, but we must have a supply of nervous power, to induce free respiration by means of muscular action and strong contractions of the heart, that the blood may be forced rapidly and readily through the capillaries of the lungs. With full respiration and active circulation,

a sufficiency of oxygen will be mingled with the blood to furnish an abundant supply of caloric. With deficient nervous power, this vigorous action of the muscles of respiration and circulation is impossible. All pathological observations settle this point. It is a wonderful fact, that butter contains not only the fuel, but the material necessary for its proper combustion. Is the supply of fuel small, the consuming power is proportionally reduced. It is thus a self-regulating article. With an increase of the consuming power, coincides a proportional increase of the material to be consumed. From these facts we may readily understand how a child may be fat, and yet be deficient in strength and vital heat. Starch-fed children are often fat, and yet are languid and weak. The starch has been digested, but, as it contained no azote, it could not nourish the tissues of the body; having no phosphorus, it could not supply the wants of the nervous system. It has thus failed to produce heat or general energy. Not so with butter. This *lecithine* excites the nervous system to efficient action, and all the functions feel its influence. And thus the butter-fed child is often less fat than one fed on starch. But in all that constitutes bodily well-being he is far in advance. To promote calorification, there is no equal to butter among the articles of food usually given to children. It is probable that no substitute for it will ever be found."

NEW YORK PATHOLOGICAL SOCIETY.

DR. E. R. PEASLEE, President.

Regular Meeting, November 24th, 1859.

[Reported for the MONTHLY, by E. LEE JONES, M.D., Secretary.]

Wound of Carotid Artery.—DR. W. DETMOLD presented a specimen of wound of the carotid artery, with the following history: He was called that day fortnight to a child who had the day previous fallen half-way down a flight of stairs, upon a pair of scissors. It appears the wound bled very profusely; but the physician, who was called in the evening, succeeded in arresting the hæmorrhage, and closing the wound with stitches. When Dr. D. saw the child the morning after, it was in a comatose condition, partly unconscious, with a pulse of 170, and a small incised wound, about half an inch in length, situated about half or three-fourths of an inch above the clavicle, in the course of the common carotid. Around the wound was a diffused false aneurism, which gave a distinct aneurismal thrill. Taking into con-

sideration the appearance and history of the case, he at once thought that one of the common carotids was wounded. Finding that there was no hæmorrhage, and that the child was in such a condition, he did not deem it justifiable to attempt to apply a ligature to the wounded vessel; more especially as the application of the ligature would be impossible, without the loss of a considerable amount of blood. There was no space to find the wound in the artery, without disturbing the artery itself. He watched the child, and did nothing. A day or two after that, the child became hemiplegic on the left side, the wound being situated on the right. This paralysis disappeared in a day or two, and he thought it was caused by the detachment of a small filament of coagulum from the plug, which was carried up into the brain.

The doctor was called a second time, because of hæmorrhage, but found it to be nothing more than bloody serum, which was promptly arrested by pressure. He then directed the child to be watched. The wound was left open, but no hæmorrhage followed. In that way the child went on, with a pulse never less than 120, until the tenth day after the injury, when he died.

A post-mortem examination was made the next day, and the injured vessel exposed by a careful dissection. There was found some blood in the sheath of the vessels. It was found that the carotid was severed entirely across, with the exception of a small posterior band. The edges of the wound were related to each other in such a way that the smallest amount of pressure was sufficient to cause coaptation of the parts. He supposed that the internal jugular was also wounded, although it is nothing more than a supposition, as it was impossible, in the condition of the parts, to make a proper dissection. He supposed that the child died of phlebitis. The case was interesting, inasmuch as it proved that such an extensive wound of a large vessel could exist, and be controlled by a very slight amount of pressure, and the child live ten days after the accident.

DR. A. CLARK asked if the paralysis was not due to a temporary interruption to the circulation through the part, and that when the force of the circulation was sufficiently restored to overcome the obstacle, the brain was again supplied with its normal amount of blood, and the paralysis disappeared? He thought, if the paralysis was due to the closure of a vessel by a clot, it would hardly disappear in two days.

DR. DETMOLD stated that he believed that a small filament of the coagulated blood was separated from the main mass, carried in the

brain until it came to an artery that was too small to let it pass. In this way a small portion of the brain was deprived of its nourishment. The clot, at the end of that time, might have been absorbed, and everything go on as usual. In conclusion, he stated that he was not aware that paralysis was the result of ligature of the carotid, in cutting off simply the supply of blood to the brain.

DR. CLARK stated that Dr. Jas. R. Wood had related six instances, and in one case that was operated upon by Dr. Van Buren, a large amount of softening was found to result. He stated that more than half of the blood to the brain is supplied by the carotids.

DR. VAN BUREN stated that he had a distinct recollection of three cases that occurred in his observation, in which ligature of the carotid produced hemiplegia of the opposite side. In two of these the result was instantaneous.

One case, said he, is that which Dr. Clark alluded to. It occurred under my care, at the Bellevue Hospital. It was performed upon a man, of middle age, for malignant disease of the nose. The case terminated in seventy-two hours, and on examination of the brain on the side of the ligature, there was found to exist a great amount of softening of the whole of that side.

The second case occurred at the same institution. The carotid was tied by Dr. Isaac Green. The patient was a middle-aged man. This was also attended with paralysis, which was slowly recovered from, though I think not entirely.

A third case was one in which I assisted Dr. Mott to tie the carotid, for malignant tumor of the throat and fauces, which was very vascular. I remember suggesting at that time to him, that the patient, who was sitting in a chair, might have a better chance to keep the vessels of the brain full, by lying on his back. Dr. Mott, however, did not take the suggestion; he tied the artery, and there was instantaneously hemiplegia of the opposite side. The patient, after a while, recovered from the paralysis, but the disease showing a disposition to return, the carotid of the other side was tied. In that case paralysis was also the result, but it was in a less marked degree, and only lasted a day or two. The patient got well of that operation, and went home in the country.

He thought that in all these cases, the paralysis was due to the interruption of the supply of a proper amount of blood to the brain. In conclusion, he referred to the case of a young lady, 17 or 18 years old, for whom he tied the carotid for disease of the scalp. One carotid had been previously tied by Dr. Jno. Kearny Rodgers.

In that case there was no positive paralysis resulting. For twenty-four hours succeeding the operation there was a slight tingling of the arm and leg of the opposite side.

DR. BATCHELDER stated that he had experimented considerably upon the carotids of lower animals, had cut them off completely, and found that they bled very little.

DR. DETMOLD stated that the pulsation of the artery above the wound was as clear as below; hence it was not cut off in a way to allow it to retract and form a coagulum. He stated, in connection with the remarks made by Dr. Batchelder, that he had also experimented upon lower animals, and met with the same results. He found that the vessel would heal without obstructing the circulation.

DR. JOHN C. DALTON next read the following report from the committee appointed to examine into the case of Mr. Groux, which has already appeared in the MONTHLY for January, 1859.

Abscess of the Brain.—DR. GEORGE F. SHRADY next presented a specimen of extensive abscess of the brain. It was removed from the body of one of the victims of the Thirtieth Street tragedy, who died at the New York Hospital on the 14th of November. The history of the case was as follows:—

Elizabeth C——, æt. 23, native of Ireland, was admitted to the New York Hospital October 26th, during the attendance of Dr. Markoe, with scalp wounds, which were inflicted by a hatchet. Two of these wounds were situated just to the left of the median line, near the vertex, longitudinal in their direction, about half an inch from each other. The third was situated posteriorly on the right side, over the occipital bone, semicircular in form, and caused by a glancing blow of the weapon. They all extended to the bone. The skull itself did not seem to be injured materially. Several small pieces of the external table were chipped off in the posterior wound, and at the bottom of the wound nearest to the vertex there was a small groove in the bone about $1\frac{1}{2}$ inch in length, evidently caused by a direct blow upon the part. When first seen, she was considerably prostrated, both from the shock of the injuries received, and the loss of a considerable amount of blood; though there was no cerebral disturbance present. Reaction soon came on, and everything progressed favorably. She continued to do well, the wounds granulating nicely, until the 3d of November, eight days after the injury, when she complained of severe pain in the side of the head, in the region of the wound, attended with a great deal of febrile excitement, dilatation of the pupils, and the occurrence of hemiplegia of the right

side. From that time she began to be stupid; her bowels were freely opened, leeches were applied around the wound, a blister to the back of the neck, but without any good effect. Coma supervened on the third day after, when an operation was attempted for her relief by Dr. Parker, who was at that time attending surgeon. During the night previous to the day of the operation the patient had four general convulsions, which were quite severe.

Taking these symptoms into consideration, it was thought possible that a portion of the internal table of the skull was depressed at the situation of the groove on the outside. Dr. Parker trephined over this spot, removed a button of bone, and found a small spicula of the vitreous table splintered off at a point corresponding with the external injury. The dura mater was diseased at that point, thickened, softened, and was unavoidably wounded by the trephine. A portion of this membrane, about as large as a twenty-five-cent piece, was cut away. The brain substance immediately underneath did not seem to be injured, and presented no marks of any abnormal action except a considerable discoloration of the part.

The wound was left open, and dressed with cold water. The next day after the operation her mental functions were sufficiently restored to enable her to answer some questions intelligibly, but the appearance of her pupils was unaltered. On the 8th, three days after the operation, a small fungus, about the size of the end of the finger, made its appearance, projecting from the centre of the wound. Still, she kept on improving, complaining only of an occasional pain in the head, of which she was always alleviated by the application of leeches. The pupils still kept moderately dilated. Her pulse, during all the time, ranged between 90 and 100, was moderately full, but compressible.

On the morning of the 11th, six days after the operation, she was seized with another general convulsion, making the fifth. It was by no means so severe as the former ones, and lasted but five minutes. She continued in this state with a good deal of intelligence, able to answer questions promptly, pulse quiet and full, until the night of the 12th, seven days after the operation, when rather suddenly coma again came on; her pupils became again widely dilated, pulse 92, and thready. Leeches were again applied, and blisters placed on the back of the neck, but no abatement of the symptoms followed their use. During the day the fungus, which had increased none since its formation, was noticed to shrink away into the cavity of the skull, leaving nothing but the thickened scab which formerly covered it.

The coma grew gradually more profound during the following night, the pulse growing more and more feeble, until 11 A. M. of the 14th, when she died. Early on the morning of her death, on removing the wet cloth from the wound, it was found to be smeared over with brain-matter; this discharge continued until death took place, and amounted in all to a small teacupfull.

The *post-mortem* examination was made four hours after death. The whole superior surface of the dura mater was thickened, and at the situation of the hole in the skull there was an opening into it nearly as large as a half dollar, nearly circular in shape, with ragged edges. This opening discharged through it a considerable quantity of broken-down brain-substance, mixed with pus of a pinkish hue, which formed the contents of an immense abscess of the brain, occupying fully two-thirds of the whole substance of the left hemisphere. The cortical portion of the organ was destroyed for a considerable space around the wound in the dura mater. The cavity of the left ventricle was found to be entirely obliterated; the *corpus striatum* and *optic thalamus* were almost entirely destroyed by the diseased action. The septum lucidum was partially destroyed. The corpus callosum was very much softened. The right hemisphere was very slightly affected, the softening being very superficial, and limited to the superior margin of the longitudinal fissure. The walls of the right ventricle were somewhat broken down, and the cavity was to a certain extent filled with the same material. Besides this, there was a small deposit of flaky pus around the optic chiasm, in the fold of the longitudinal fissure.

I omitted to state that, at the time of operation, there was a very small quantity of pus seen to flow from the wound in the skull.

DR. DETMOLD, in this connection, referred to a case of an extensive abscess of the brain-substance, about half an inch below its surface, evacuated by a free incision. When he first saw the case the patient was comatose, the pulse 40, breathing stertorous; &c. He removed a portion of bone, and found the dura mater perfectly healthy, but from the nature of the case, being under the firm conviction that an abscess did exist in the brain-substance, boldly cut through, and evacuated it. While the pus was flowing the patient recovered consciousness. The quantity of pus discharged amounted to five or six ounces. After that time the patient got about for a couple of months, and with the exception of his memory, which he entirely lost, he did very well. His reasoning powers seemed to be unchanged. He lived sufficiently long to allow the wound to heal up, with the exception of

a small opening, through which a probe could be introduced for its whole length into the lateral ventricle. At the end of a couple of months trouble in the brain again made its appearance, pus formed in the ventricle, and was evacuated; but he died soon after. It was found that the septum lucidum had ruptured, and discharged some of the contents of the diseased ventricle into the one on the opposite side.

DR. VAN BUREN, in this connection, referred to an analogous case of another one of the victims of that tragedy. The wound was about an inch and a half to the left of the mesial line on the top of the head. It presented a solitary fissure, which penetrated the skull, and resembled very much the appearance of a chop in a log by a single blow with a broad-axe. It was impossible to bring the edges into any correct apposition. A probe being introduced into the wound, went into the substance of the brain. I was satisfied that the dura mater was injured, and went no farther. The patient had no concussion, and no paralysis whatever. Under the circumstances, I thought it was best to close up the wound, in hopes that the opening in the dura mater might also be obliterated. This was accordingly done by sutures. The patient did well for thirteen days; then he was seized with convulsions, after which he was thoroughly paralyzed upon the opposite side. With a pair of cutting forceps the cranial bones at the seat of the injury were carefully gnawed away. It was then discovered that some of the fragments of the internal table were detached by the force of the blow. These spiculæ were found to be adherent to the dura mater, and when detached pus was seen to flow. The child looks very much at present as if he was going to get well. It is now fourteen days since the operation. The convulsions have never recurred, the paralysis is going off, and the child is improving in every way. There could be noticed no obvious perforation of the dura mater at the time of the operation. After the operation everything went on very slowly, and in the mean time he began to be excessively pallid. This state of things had been noticed by Rokitansky, who supposed it to be due to a lack of power to elaborate the blood corpuscles.

He stated that four out of six of these victims were paralyzed on the opposite side of the injury—the child, the father, and the young woman taken to the hospital. The other two were not paralyzed; one of them was injured but very slightly, the other very severely. The mother had only two superficial scalp wounds, and one deeper one, injuring the squamous portion of the temporal bone. He hoped that the internal table was not injured. The eldest son was very

severely injured. It was the most extensive and formidable one of the six, and yet not a bad symptom has shown itself since the injury, and is now on a fair way to recovery.

DR. W. BIBBINS cited a case of a little child who had fracture of the skull, caused by a spade falling a considerable distance, and sinking upon the top of the head. The wound was quite an extensive one, though the dura mater was found to be uninjured. The wound was left open, and the child went on perfectly well, and recovered without a bad symptom.

DR. W. PARKER thought that surgeons strove altogether too much for union by first intention in these cases. He could never succeed to his satisfaction. Upon the whole, he preferred nature's second intention to her first—it always seemed to turn out better.

DR. BATCHELDER stated that if the dura mater was injured, and the scalp could be induced to close up by first intention, the hole in the dura mater would close itself up, and fungus by that means would be prevented.

DR. KRAKOWITZER stated that Dr. Isaacs examined a case of fungus cerebri, where the matter protruded was essentially brain-matter; that is to say, he found under the microscope the peculiar granules, cells, and nerve-fibres. Dr. Krakowitzer thought if the dura mater was extensively lacerated, so that there was a large opening into it, fungus cerebri would not occur. He had trephined a few months previous, where he removed a square inch of the dura mater, yet no fungus made its appearance. In another case, where the dura mater was wounded, he closed it over with the flaps, and at the end of five days after he found that a considerable portion of the external table was necrosed. He thought if the wound had been left open this would not have taken place.

DR. PARKER referred to a very interesting paper upon this subject by Dr. Gurdon Buck. In all those cases the fungus was found to be brain-matter. He stated that Abernethy's idea was that these growths were of a morbid character, and sprung from some portion of the brain. Dr. Parker believed that a portion of the brain became softened by inflammatory action, and as a consequence was protruded through the opening in the dura mater by the *vis a tergo* of the heart.

DR. KRAKOWITZER thought that the fungus was a new growth, and that Dr. Isaacs' case was a very rare exception.

DR. PEASLEE thought that those cases where the brain-substance itself is protruded must be very rare. He thought that they were made up of granulations, and were a new formation.

DR. CLARK stated that he had examined, in two of Dr. Buck's cases, portions of the fungus under the microscope, and was positive that there was not a particle of brain-matter in them. He had examined in all about five cases, and in neither did he find the least trace of any brain-matter. He thought that the production of new brain-matter was an impossibility. He did not believe that any microscopical observer had ever found it. Instances, he said, had occurred where a considerable amount of this material had been found, and where the cavity had been filled with serous fluid, the patient recovering. He stated that there was not the slightest shadow of evidence that went to show that brain-matter once destroyed could ever be reproduced.

Uræmia—Fatty Kidneys—Stricture of Urethra.—DR. C. R. AGNEW presented the following history of a case:

Francis Nichols, 31, colored seaman. Admitted November 23, 1858. Patient, owing to a morbid sluggishness of intellect, can give no complete history of his previous condition, but only states that he has been subject for a long time to habitual constipation, alternating with diarrhœa; to headaches, pains in the lumbar and abdominal regions, and occasional dyspnœa. He has been somewhat addicted to alcoholic potations, and latterly his *slight* ailments have generally been attended by delirium. For the last two days he has suffered as at present, on admission, from severe pains in the forehead and in the abdomen, attended by constipation without abdominal tenderness. His circulation is much excited, pulse 120, quick, moderately full, and cordy. Skin dry, of normal heat; tongue thickly furred, white. Bladder not distended. The patient's mind is confused, and disposed to delirium. Notwithstanding the arterial excitement, there are no rational nor physical signs of acute disease in the chest or abdomen.

Treatment.—Ordered stimulating enemata, warmth to the surface, and sinapisms, to induce cutaneous action.

25th. The use of the enemata, and on the following day of calomel and ol. ricini, induced copious bilious stools, of an ammoniacal and highly acrid odor. Pulse still quite hard, 100 per minute. No sensible perspiration.

27th. Has now marked diarrhœa; the stools of the same character. The urine has, since admission, been voided very frequently, and in small quantities, about every three hours; is of ordinary color, albuminous, of acid reaction, and contains no precipitate. A stricture large enough to admit a flexible bougie, size 3, exists in the spongy portion of the urethra, near the bulb.

28th. Early this A. M. patient was seized with acute delirium, and

in rising from his bed, fell in an epileptiform convulsion, lasting about five minutes, and followed by slight coma. He continued for some two hours after partially insensible, and much prostrated. Pulse now, at 9 o'clock A. M., 96, smaller, softer. Ordered wine, ord. opium, to abate the diarrhœa.

December 2nd. Patient has, since last note, been delirious and drowsy; sometimes less so than at others. The abdominal pain and the headache continue; bowels soluble. A slight convulsion last night.

5th. Patient had another light convulsion on the evening of the 3rd instant. The drowsiness increased, and the scanty and frequent discharge of the urine continued till the last evening's visit, when his breathing became more livid; sighing and anxious; partial coma came on, and death took place at 10 this A. M.

Autopsy.—Great emaciation. No anasarca. The brain found rather anæmic. No effusion under the arachnoid, or in the ventricles. About 3ij of purulent-looking fluid in the right pleura, which was adherent to the diaphragm. No other effusion or adhesion. Vesicular emphysema in both lungs; most marked at their apices and free anterior borders. Other viscera exhibited no morbid appearances, except the kidneys, bladder, and urethra, which are presented for inspection. In the urethra is an organic stricture some two inches long, $1\frac{3}{4}$ inch of which is situated in the spongy portion of the remaining 2 or 3 lines, in the membranous portion. Corresponding in direction and length with it, on its dorsal aspect, is a false passage, that, being slit open, shows a regular canal, with two or three shallow pockets on its surface, which is smooth and polished, but without the whitish color of the mucous membrane. There is also another pocket 2 lines deep on one side of the distal orifice of the stricture. The bladder is contracted to the capacity of about one ounce, its coats thickened, and its mucous membrane of a slaty color, indicating chronic inflammation. A similar appearance of the mucous membrane is traced along the ureters, which are not dilated, and also found in the pelves of each kidney. The kidneys are in the second stage of Bright's disease; fatty degeneration, of denser consistence than normal; the cortical substance in each much thinned, and the tubular mostly disorganized.

Regular Meeting, December 8, 1858. E. R. PEASLEE, M.D., President.

Softening of Cranial Bones.—DR. KRAKOWITZER presented a very interesting specimen taken from a child who died when four and a

half months old. The child was born on the 18th of last July, and the parents are to all appearances healthy. On the 2d of November, it was taken with symptoms of gastric derangement, for which no other cause could be found except a couple of severe frights the mother experienced the day before, as a consequence of which her lacteal secretion was suspended for twenty-four hours. This gastric derangement was soon followed by congestion of the brain. By a careful application of ice to the head, and the judicious use of calomel in cathartic doses, this tendency to determination of blood to the brain was controlled in the course of three or four days, but there was a train of symptoms remaining which proved that exudation had taken place. The child was very restless during all this time, and the appetite was very capricious, and there was a tendency of the head to be drawn back by a rigid contraction of the muscles between the shoulders. The lower extremities were bent voluntarily upon themselves, and it was impossible to overcome the contraction. There was never any dilatation of the pupil, never any vomiting. The child had three or four passages in the twenty-four hours. About the fifth or sixth day it was noticed that the child would only lie on the right side. On the seventh day my attention, said he, was directed to a singular conformation of the head: it had lost its symmetry, and was flattened on the right side, in the parietal region, with a proportionate protrusion of the frontal region of that side. On going over the head, he found that the resistance of the bones on the posterior part of the parietal region was less than normal. Pressure gave rise to a slight crackling noise. This yielding of the bones increased gradually every day, without the other symptoms changing in the least. In eight days after, he first noticed this tendency to softening and disappearance of the bony substance in the situation of the posterior fontanelle, leaving a space about as large as the three fingers, where no bone was felt at all. He considered this condition of things unsusceptible to treatment, and gave, merely with a view of removing the exudation, the iod. pot., together with the local application of ung. hyd. On the 19th of November the child was thrown into convulsions all over the body, with the exception of the left upper extremity, which was relaxed and pendulous. This convulsion lasted four or five hours, and the child came out of it, a good deal better, as far as the rigid contraction of the muscles was concerned. While under the convulsions, heroic doses of calomel, 2 grs. every two hours, were given, until twelve such doses were taken.

About this time, Dr. JACOBI, who saw the case, suggested the ad-

ministration of phosphate of lime in some shape or other, with a view of counteracting this tendency to softening of the cranial bones. The tart. emetic ointment was applied to the scalp, and 3j doses of the compound syrup of superphosphates, together with quinine, were given. The quinine was soon after stopped, on account of the loss of appetite which it occasioned. The mother, by this time, had sufficient milk to nourish the child. To this allowance a pint of beef-tea was added daily. Under this treatment there did not take place any improvement in the head symptoms, but further softening in the cranial bones did not go on. In the course of a week there was noticed that in some spots, where before, by pressure, not the least sensation of bone could be felt, that a slight crackling was evident. In about twelve days from the time that the child was placed under this treatment, the regeneration of the structure in the occipital and parietal bones progressed so rapidly, that two days before he died the head had commenced to assume its normal shape; still, there was no abatement in the other symptoms. The child, during the whole period of its illness, never lost its consciousness for one moment, except during the attack of convulsions. The child died in a severe convulsion, on the 4th of December.

There was one feature which attracted his attention towards the close of the disease, which was this: The child, very soon after the first invasion of congestion of the brain, showed symptoms of slight bronchial trouble, which for eight days kept pretty much the same. About a week before its death he was taken with a short, dry, spasmodic cough. This would continue incessantly, sometimes, for twenty minutes. The mother said one paroxysm lasted about three hours. He considered this cough to be the result of irritation of the par vagum. It subsided under the use of powdered root of belladonna.

Autopsy, eight hours after death. On laying open the cavity of the skull, clear serum escaped, to the amount of $2\frac{1}{2}$ ounces, which had accumulated in the arachnoid sac. On inspecting the brain, it was found that there was a good deal of coagulated lymph in the pia mater; most in left hemisphere. This effusion of lymph was not only on the top, but on the lower aspect of the cerebellum. The brain itself was pale, but not very soft. Both ventricles were equally dilated, each containing about an ounce of clear serum.

This portion of the calvarium presents an unusual extent of softening of the bony structure—most marked on the right side—extending over nearly half of the parietal bones, and affecting, also, to a small degree, the occipital. At some points the bony structures seem to be entirely absent.

In answer to a question from Dr. Finnell, he stated that no softening of the other bones could be found to exist.

DR. PEASLEE remarked, that there were two points of interest to be taken into account: 1st. The change in the composition of the bone, owing to defective nourishment. 2d. That the bone was restored so rapidly.

DR. HENSCHELL observed, that Gaerghan, of Hamburg, referred to three cases of softening of the cranial bones. He, in two of these cases, gave, with good effect, the phosphate of lime.

DR. KRAKOWITZER stated that Elses was the first who had written upon this subject, and had collected fifty cases. As far as he recollected, this was the youngest case. The disease generally commenced in the occipital bone; but in this instance he was quite sure that it originated in one of the parietal bones.

In answer to a question, he stated that the child had always been healthy up to 24 hours previous to the mother taking the fright.

Exsection of Head of Femur for Morbus Coxarius.—DR. MARKOE next presented two specimens of *heads of femur exsected for morbus coxarius*. One was removed from a boy about eight years of age, in whom the symptoms of hip-joint disease developed themselves about ten months previous. He was treated in the N. Y. Hospital by rest, the straight apparatus, &c., but it was attended with no success whatever. About three months previous to the operation an abscess formed on the side of the thigh and opened itself. From that time he lost ground very rapidly, until finally the only chance left for him seemed to be exsection. The operation was performed on the 27th September. A longitudinal incision was made about seven inches in length, commencing three inches above the trochanter, and another at a right angle about five inches in length, commencing over the trochanter. On opening into the joint, the capsular ligament was found to be very much diseased and broken down, the head of the bone was found to be carious, and the surface of the acetabulum was also found to have undergone degeneration. Rotating the thigh outward, the head of the bone became dislocated forward; the chain saw then being applied, the head was separated close to the trochanter. The severed portion was found to be much softened and irregularly eroded. The periosteum of the neck was loosened, the whole surface was very much reddened, and gave the appearance of a bone in a high state of inflammation. The remaining portion of the bone seemed to be healthy. The surface of the acetabulum was found to be diseased to a considerable extent, all of which was removed by the gouge.

The longitudinal incision was closed up, the other being left open for the discharge. Moderate extension was afterwards kept up by means of a pulley. Since the operation the patient has continued to improve. It is now eleven weeks since the operation, and the patient is able to set up all day. There is now nothing left but a fistula, which discharges about a drachm per diem. He is now able to raise the limb from the bed, and the prospect is that the patient will have a good recovery.

In the second case the patient was also a boy, eighteen years of age. His history was similar to the one just related. In this case there was no marked deterioration of the general health, and the danger to life was by no means so great as in the former case. We regarded it as an ulceration and destructive disease of the bone, and thought that we would seize upon a favorable opportunity for its removal. The disease had existed for six months, and an abscess had opened itself two months previous to the operation. A doubt arose in our minds in regard to the extent of disease in both cases; it was impossible to determine what was the extent of the erosion. In both cases, when the patients were etherized, we tried to produce the grating sound by rubbing the surfaces together. In the first case we succeeded in getting this sensation in a slight degree; in the second we could get none, although the disease was far more advanced than in the first instance. This state of things was owing to the fact that the diseased bone was covered over with plastic lymph. The operation was carried on very much as in the first instance. The head of the bone removed was much diseased, and those portions which were not covered with flocculent lymph presented a honeycomb appearance, and was so soft that the finger could easily be pushed into it. The tissue of the head of the bone was found to be infiltrated with a large amount of pus. Below the point of section in the femur the tissue of the bone seemed to be perfectly healthy.

DR. SAYRE stated that he believed he had the honor of being the first to perform this operation of exsection of the head of the femur in this country. The patient was six or seven years of age, and the operation was performed 20th of March, 1854. He was struck with one feature in the cases just related: the absence of the grating sensation when the surfaces of eroded bone were crowded against each other. He supposed it to be owing to the distention of the joint with fluid, inasmuch as effusion into the cavity of the hip-joint will produce the peculiar hip-joint deformity. In his case a single longitudinal incision was made. There was a considerable effusion into the joint, and he was not able

to get the grating sensation until the fluid was evacuated. His case was perfectly successful, and recovered at the end of seven months, with $\frac{3}{4}$ of inch shortening. The patient now has almost perfect use of the joint.

DR. BATCHELDER said that he removed the head of the femur twenty years ago; that the operation was perfectly successful. An opening which existed was enlarged by the compressed sponge.

DR. SAYRE did not think it could justly be considered an operation of exsection, as the portion of bone came away of itself.

Enchondromatous Tumor of Thigh.—DR. WILLARD PARKER presented a specimen of an enormous tumor removed from a patient thirty years of age. The patient is a farmer, of good constitution, and never suffered from constitutional disease. About six years ago he first discovered a tumor, about the size of a pullet's egg, on the anterior aspect of the thigh, two or three inches above the lower extremity of the femur. Whether it was movable or attached he is unable to say. The tumor gave him no uneasiness or pain, nor did it seem to interfere with his general health. He came to the city on the first of last November. He advised him to go to the hospital, and a consultation of the case was held by the surgeons, who decided that it was best to amputate the limb. At that time there was a little increase of temperature in the tumor. The veins over the tumor were somewhat enlarged, and gave the appearance of tortuosity common to malignant tumors. At certain points the tumor was elastic and had the feel of fluctuation. Its whole extent was thirty-six inches in circumference, and thirty-two in length, commencing about three inches below the trochanter, extending to an inch below the knee. Nov. 25th the limb was removed; on cutting into and removing the integument, the muscles in the vicinity were found to be flattened out over its surface. The tumor seemed to be situated in a dense cellular substance or sac. The tumor is attached in its lower portion to the entire surface of the femur. The nerves were not interfered with, and the tumor seems to have grown around them. The artery could not be traced below the upper extremity of the tumor. The tumor seems to be composed of dense lobules, ranging in size from an English walnut to a child's head, imbedded in dense fibrous structure. At some points there are distinct firm masses of bony substance; at other points, instead of this bony substance, we have a sort of calcified material; then again we have a sort of limy deposit. The stroma is made up of cells, from .1000 to .1500 of an inch; they are not cancer-cells. This form of tumor is beautifully described by Mr. Paget, and is called by him fibro-car-

tilaginous; also described by Müller, who denominates it enchondromatous. He has seen this form of tumor in four or five instances originating in the phalangeal bones. This is a benign tumor, although, as stated by Mr. Paget, it now and then recurs. It is usually slow in its growth, as is commonly the case with bony tumors. Sometimes, however, it is very rapid. Paget relates a case that was in Bartholomew's Hospital, where there was such a rapid growth that the patient succumbed in three months. This tumor is next to the largest on record. The largest is one reported by Sir Philip Crampton, of Dublin, where the tumor measured $6\frac{1}{2}$ feet in circumference; the one now presented is 3 feet.

DR. BUCK, in this connection, referred to a case that had been under his observation for the last two years. The patient is a gentleman forty-five years of age, who he supposes has this same disease, occupying the lower three-fifths of the thigh. The tumor has attained a considerable size, not, however, as great as this, and differs from Dr. Parker's case, in the fact that it is even and symmetrical. It has a distinct limit above where you recognized the same bone and muscles surrounding it; at its lower portion it is so situated as to embarrass the motions of the knee very considerably. Two years ago he suffered a good deal of pain in it; so severe and perpetual was this symptom that he was compelled to use anodynes freely. A consultation was held, and the question of an operation came up, either of tying the femoral or amputation. We finally came to the conclusion that an operation had better be deferred; the sequel of the case has shown that the advice was judicious. Within a year the pain has so far ceased that he is enabled to dispense altogether with the use of anodynes, and is able to attend to his business. He has seen him within the last four or five months; the growth is very moderate, almost requiring measurement to determine its increase. He is now free from pain, and his general health is good. At no point is there anything like fluctuation, as in Dr. Parker's case.

DR. GOULEY stated that the greater portion of the class of tumors denominated osteo chondroma were made up of fibrous tissue and hyaline cartilage, together with large and small cartilage cells. The bony tissue found in them did not contain the lacunæ and canaliculi.

REVIEWS AND BIBLIOGRAPHY.

The Transactions of the American Medical Association. Instituted 1847. Vol. XI., pp. 1,027.

This is a portly volume, well printed on good paper, bound in muslin, and quite creditable in its general appearance. It contains eighteen papers on professional subjects—some very brief, some very long—and two prize essays. Five of the papers are illustrated either by maps, colored lithographs, or wood-cuts, all of which are good, and answer the purpose for which they are designed. Turn we to glance over the separate papers which the volume contains.

The address of the president, Dr. Paul F. Eve, is not in accordance with our taste, though better than some of its predecessors. It is chiefly a glorification of the association, as if some one had proposed the very pertinent question, what good has the association done? and the president had undertaken to answer it. We are quite struck with his enumeration of its labors, and therefore report them, with the short commentaries which they suggest to us. In the ten volumes of Transactions, published before this, "three hundred pages are devoted to medical education;" (there are ten more in vol. xi., and the result of the whole is nothing;) "over five hundred to hygiene, including the sanitary condition of many of our large cities," (and which of them is improved by it? certainly not New York;) "six hundred to botany, and indigenous plants;" (very dry, though very scientific—read by few, understood by fewer;) "one hundred and fifty to obstetrics; (far less than this progressive department should have furnished;) "four hundred to medical literature," (in which there are almost as many different opinions expressed as there are writers, and which has produced as much effect as the reports on medical education;) "seven hundred and fifty to medical science proper," (a distinction not making very clear to our mind the author's meaning;) "more than a thousand to surgery," (in which are some of the best papers of the volumes;) "and two thousand to practical medicine, including the epidemics and prevalent diseases of nearly every State in the Union," (which is in reality *the* thing that has been best done by this association, and by which some one may hereafter be aided very materially in writing the history of the epidemics of the country, possibly in tracing them to their sources.) If in this extract the president has enumerated all the pages of the series of Transactions, which are devoted to professional subjects, it makes a total of 5,700, or a little more, issued in ten years. Averaging this, it makes 570 pages per annum; not a large amount to

boast over, unless it were all excellent, which we suppose no one will assert. As we learn more distinctly of the dimensions of objects by comparison, we may say that this MONTHLY has never contained less than 720 pages a year, each containing nearly, if not quite, as much matter as a page of the Transactions; while it has frequently contained almost, if not quite, 1,000 pages a year. Surely, as to the amount of matter, the association is not doing *very* wonderful things. As to the quality of the articles, time would fail to say all that might be said about that; but we may add, that "fair to middling" is as high praise as the average will bear.

Occasionally the worthy president was carried away by his enthusiasm beyond the solid ground of facts. Thus, he asserts that "the communications on deformities after fractures constitute the basis of *the best monograph ever issued from the press.*" Very sweeping that! Wonder if Dr. Eve has read *all* the monographs ever issued from the press? If not, it would have been worth his while to have said *one* of the best, and that would have been sufficient praise even for Dr. Hamilton.

But hear our worthy president's peroration: "Gentlemen of the American Medical Association, we have convened for important purposes; great events are before us; the interests of humanity are here; the hopes of the profession are in this meeting; the eyes of the world are upon us. May we then so act, in view of surrounding circumstances, that the 'skill of the physician shall lift up his head, and in the sight of great men he shall be in admiration.'"

The quotation is very appropriate when we consider that the meeting was held at Washington; but we do not quite believe that about the hopes of the profession. If so, we should say as Col. L. did to the niggard of whom he solicited a donation to place the statue of Washington in Union Square, and was met with the assertion that Washington was enshrined in his heart: "Sir, if that is the case, Washington is in a mighty tight place."

There is no disputing about tastes; therefore, we may be permitted to regret that the president should have poured out such fulsome panegyrics upon the body of which he was the chief officer.

The "Report on the Medical Topography and the Epidemic Diseases of Kentucky" is by W. L. Sutton, M.D., and is rather to be taken in connection with the reports on the same subject, and by the same author, in vols. V., VI. and VII., than by itself. The geological topography of the State, and its effects on diseases, are discussed, and illustrated by a map; while, to show still more clearly the character of

the people, the writer gives a summary account of the settlement of the State. Here the reader finds himself very unexpectedly engaged with the stories of Indian warfare, which he is not accustomed to meet with in medical books; and he is scarce recovered from his surprise when he is again astonished by a *quasi* defence of the slaveholders of Kentucky. Albeit we quite agree with the writer as to the condition of the slaves in his State, and for our own part have no objection to anything that he has said, our judgment is that it would have been better to omit this part of his report, especially all reference to Mason and Dixon's line. Let us keep political *thoughts* out of our professional publications. Quite an interesting account of the mineral waters of the State follows, and this will, with the accompanying analyses, be of great use in the State, and in its vicinity.

The Jerks, a curious and instructive nervous disorder, the effect of the excitement of certain meetings for religious purposes, is next described at length. Nothing new is suggested concerning it, but it is perhaps well enough to embalm the subject for preservation in this sarcophagus.

The remainder of the report, except a few tables, is taken up by a discussion of different theories as to the cause of "milk sickness," that curious disease of cattle and of man. Dr. Sutton does not attempt to decide *ex cathedra* as to its cause, but gives his reasons for ascribing it to malaria. It is a disease which should be very carefully studied by all who are called upon to treat it, and in the obscurity which hangs over it, every fact, though it may seem unimportant, should be carefully recorded.

The "History of the Topography and Epidemic Diseases of New Jersey, and the Treatment thereof," is by Dr. L. A. Smith, of Newark. It commences with the not unfrequent complaint of lack of assistance from professional brethren, to whom circulars had been sent and requests made for assistance. It contains a very good account of the topography of the State, and short sketches of the epidemics which have been noticed by the writer and other authors during the last three years; these are the exanthemata, dysentery, erysipelas, whooping-cough, and intermittent, remittent and typhoid fevers. New Jersey ought to have done a good deal more, but she might have done a good deal less.

The "Report of the Committee on the Epidemics of Ohio," by Dr. Geo. Mendenhall, is very short, and repeats the complaint of the New Jersey reporter concerning the impossibility of obtaining any information from the profession. Three pages of this volume contain

the result of the committee's labors since 1855, when it was appointed; and if we assume, as we certainly shall, that the committee has been industrious, we have a striking evidence of the truth of the statement of the reporter, "that the past three years has been a period of unusual health." The report closes by recommending to the association the adoption of the following :—" *Resolved*, That a committee of six be appointed, the chairman of which shall reside in the District of Columbia, to memorialize Congress, and urge the passage of a law by which a uniform system of registration may be adopted by all the States for the purpose of obtaining correct reports on vital statistics, by those whose duty it may be to take the census of 1860." We do not find that any action has been taken on this important and *practicable* matter. It should be pushed by Dr. M. at the next session of the association.

The report on Medical Literature is by Dr. A. B. Palmer, of Detroit, and of course attracts our attention, because this committee is accustomed to give the medical journals a talking to for their shortcomings and misdoings, as well as for their right doings, for we will do their reports the justice to say that they almost always have some pleasant words for those poor drudges, the editors; not that we can say that the journals have been particularly benefited by the association. Power to influence does not come in that direction; and in fact the thirty journals of the country have more power with the profession, and constitute a more effective instrumentality, than all the associations put together. In truth, the association would be blown to atoms if these publications should happen to begin together to oppose it, or even to hold from it the support which they now give. It might be well for reporters to remember this before they attempt to pat us on the back with a patronizing air. Gentlemen, we are independent of you, but you are not of us; therefore it becomes you to treat us with civility at least, which has not always been the case. This report is free from these faults to a remarkable degree, and is marked for the most part by sound common sense. It will, we trust, be useful to the profession at large, for it contains some wholesome truths of value to them. The reporter is, however, wrong in the estimate which he places upon the reviews of books. They are well enough in their way, but they are not what the profession desire, they are not particularly useful to them as a general thing, and but few will carefully read them; an analysis of a book is sometimes needed, but the greatest benefit to the profession is from a careful estimate of the value of the book to the physician in his daily duties. We say this more

freely because the MONTHLY has at one time and another given a good deal of space for reviews, carefully prepared by those who were every way competent in the departments under which the various books might be ranked. If in the style of some of the English reviews the title of the book be made the text of an essay upon the subject of which it treats, well and good, but the same thing could have been as well done without the text, and, in some respects, better done. If it is intended to combat the author's notions, this makes the review an argument against the author's doctrines, which may be occasionally useful to the profession at large, but as a general thing has no extended interest. If the book contains only a grain or two of wheat, it can be sifted out and presented to the readers of journals in a "book notice" of two or three pages. There is in the same space room enough to blame the author for his sins, whatever they may be thought to be, whether against language, or against science, or against truth.

As if with the intention of computing his own arguments for reviews, the reporter proceeds to give 'notices' of a number of books; and although they have not in them the phrases to which he objects as being stereotyped for use, (and which are not so common as he supposes,) they read just like 'notices' from medical journals. Take, for instance, the notice of Miller's *Obstetrics* as an illustration, and the resemblance must strike every one. At once it gives a terse, pointed, exact description of what the work is, from which any man could judge, whether or not he cared to purchase it for his own library; and is not this as well as to have made it the excuse for an elaborate discussion of some vexed point in obstetrics, or for wandering off into the obscurities of embryology? There can be but one answer to this, and that affirmative. From all this it is clear that, in our opinion, the absence of *reviews* in our journals is not in consequence of a deficiency of funds in the hands of editors to enable them to pay reviewers, as the author of this report asserts, but because reviewers are not much wanted. We mean such reviews as the author of this report evidently has in mind. Occasionally they are well enough, but to give reviews of every work that comes to us from the publishers would be absurd, excluding, as they must necessarily, matter which is worth vastly more to the man occupied by his professional labors. There are several other topics discussed in this report upon which we should like to dwell, but cannot. The report is well worth reading, though we cannot but regret that the author allowed the "American Eagle" style of writing to soar with him to

such heights as he reaches in that long sentence on p. 219. His perils are fearful.

In justice to the committee, we append a brief summing up of the leading positions of the report :

“ The periodical literature of the United States is regarded as possessing great abundance, variety, richness, and general excellence; and though still possessing defects, is constantly improving. Many of the contributions are of great weight and value, indicating an enterprising and industrious profession. Serious defects are regarded as existing in the review department, arising mainly from the fact that the increase of the journals will not justify pecuniary disbursements for literary labor; and editors, necessarily engaged in other pursuits, cannot command the time, if all possessed the ability to do the work thoroughly and well. A few well-supported journals in place of the many but illy (*ill* is the proper word) sustained, might tend to correct this evil; but the multiplicity of local journals is considered as peculiarly beneficial, by collecting from a greater variety of sources a larger number of facts, and developing the powers of a larger number of writers.

“ The number of original American medical works is increasing, and their character is improving, and in some respects, particularly in practical utility, they will not suffer in comparison with those of Europe; yet serious imperfections exist, and decided improvements are demanded. Great and permanent improvements in medical, as in general literature, must be gradual, depending more upon the advancement of education, of taste and intelligence, than upon any specific measures which may be adopted. Still, various particular measures, such as the frequent writing of medical theses during professional pupilage, and keeping systematic records of cases when in practice, would do very much in hastening improvement. But for the greatest perfection of our literature we must wait the fuller development of our country, and for those changes of time and circumstances which shall produce a larger number of devoted savans and scholars, placing them in situations where a variety of absorbing pursuits shall not prevent the concentration of great talents upon a comparatively limited range of subjects.

“ Respecting the reprint of foreign works, it is held, that while the free circulation of the best class of these works among us increases the knowledge and improves the taste of the masses of the profession, it does not interfere with the production of the higher order of original works; and that the moral obligation of our government to join with

Great Britain in the enactment of an international copyright law, is by no means clearly established."

The "Report of the Special Committee on Medical Education" is by Dr. J. R. Wood, of New York; and while it is full of sound observations, and is straightforward and sensible, it is not practical in its suggestions, and will not accomplish anything. The recommendations of the committee are referred to a convention of delegates from the various medical colleges, which is called at Louisville on the Monday next preceding the day on which the association meets, that is, on the second day of May next. When that convention has met, *and done anything*, we will let our readers know.

Dr. J. Foster Jenkins, of Yonkers, N. Y., is the writer of the next report, of which the subject is "Spontaneous Umbilical Hæmorrhage of the Newly-born." From the rarity of this accident comparatively few have seen a case of it; while, for the same reason, it happens that little is known of the causes which induce it. Hence the greater value of this attempt to elucidate it. This is probably the best and most complete paper as yet published upon the subject, and, although we cannot give the association any particular credit for having drawn out the paper, for it would no doubt have been written and published if the association had never been heard of, we can congratulate that body on having the opportunity of presenting so valuable a paper in its transactions.

The author describes two forms of umbilical hæmorrhage. In the one which is most common, "a fungoid excrescence springs up from the bottom or edge of the navel, after the falling of the cord, while cicatrization is yet incomplete. From its granulated surface moderate bleeding occurs at intervals." The other form commences "occasionally, a few hours after birth, by exudation of pale blood from the walls, and at the insertion of the funis; but it more frequently succeeds, sometimes by many days, to the falling of the cord. Jaundice and purpuric eruption, from their frequent association with it, may perhaps be regarded as warning signs of its coming. Other than these it has none. A serous or sanious oozing from the apparently healed surface of the umbilicus deepens gradually into a continuous percolating hæmorrhage."

The first form is usually treated with success by the application of a pencil of nitrate of silver, or a ligature; the second form is almost uniformly fatal, in spite of the use of the most active measures to stop it.

Dr. Jenkins has brought together, from different sources, 178 cases

in all, of which 76 have not been before published, having been communicated directly to him by the gentlemen in whose practice they occurred ; one was in his own practice.

The remedies which in the severer form of hæmorrhage receive the most praise from the author, and are chiefly to be relied upon in his opinion, are externally the ligature *en masse* as recommended by Mr. Paul Dubois, (that is, transfixing the base of the tumor with two hair-lip pins and applying the figure 8 ligature over them,) and internally the mineral acids, the muriated tincture of iron, the sulphate of quinine, anodynes to allay muscular action, nourishing food and stimulants.

The next report is on the influence of marriages of consanguinity upon offspring, by S. M. Bemiss, M.D., of Louisville, Ky., but this must be reserved for a subsequent number of the MONTHLY. P.

Report on the Nervous System in Febrile Diseases, and the Classification of Fevers by the Nervous System. By HENRY FRASER CAMPBELL, A.M., M.D., Professor of Anatomy in the Medical College of Georgia. Philadelphia: Collins, Printer, pp. 172, octavo, 1858. Received from the author.

About a year ago, we called attention to a volume similar in size to the one before us, and from the same pen. (See AMERICAN MEDICAL MONTHLY for April, 1858.) The volume before us is a continuation of one of the papers in the volume referred to, and constitutes Dr. Campbell's Report to the American Medical Association for 1858; from the published Transactions of which Association it is extracted.

In the development of all the varied phenomena of life, whether in states of health or disease, the nervous system has long been recognized as deeply implicated. In the abnormal phenomena, manifested in the various forms of febrile diseases, this implication has been variously observed; but, so far as we know, Dr. Campbell is the first writer who has attempted an extended classification of febrile diseases, upon this nervous relation.

Humoralism and solidism have each had their advocates, and each system, in its explication of morbid manifestations, has presented more or less of truth, which truth cannot be excluded, but must form an essential part of any *neuropathic*, or any other theory of fevers.

In regard to neuropathy, and the design in the paper before us, the author says, "What has been regarded as only a part of the woof, we wish to show is the very warp upon which all the phenomena of

fevers are fabricated. In a word—we wish to make the relation which the *nervous system* sustains to febrile diseases the basis upon which all other phenomena, however diverse and antagonistic, are to be classified and systematically arranged.”

Dr. Campbell, at the outset, gives expression to three propositions, about which cluster nearly all that he has to say in the essay before us.

Prop. I. “As all the normal phenomena of the living organism are known to occur under the superintending influence of the nervous system, and are dominated by it, so it is but rational to regard all morbid actions as being more or less influenced in their manifestations by aberrated nervous action. In that class of diseases ordinarily designated fevers, our researches and observations have led us to the confident belief that the above law applies with sufficient prominence to constitute the basis of their classification, and we would respectfully claim for it, that it is the only reliable basis of their classification; and further, that in its more extended application, it will hereafter be found to constitute what may be called, *par excellence*, THE LAW OF FEBRILE DISEASES.”

Prop. II. “As in the nervous system we recognize two grand departments, viz.: 1st, The cerebro-spinal system, all the normal actions of which are subject to cessation and interruption; and, 2nd, The ganglionic system, all the normal actions of which are of a *continuous and uninterrupted* character, so in the manifestation of febrile diseases do we distinctly recognize two grand distinguishing characteristics, respectively typifying the normal actions of these two systems of nerves. Thus, a character of *paroxysm* obtains in certain cases, while a character of *continuousness* as plainly marks the others.”

Prop. III. “As in the cerebro-spinal system we find that its normal action pertains almost exclusively to sensation and to motion, with only a secondary and comparatively remote influence (which we have termed excito-secretory) upon nutrition and secretion, while in the normal action of the *ganglionic system* the entire function is known to be to preside over nutrition and the secretions, so in *paroxysmal fevers* do we find intense pain, modified sensation, and symptoms allying them to neuralgic and convulsive diseases very prominent; while in *continued fevers*, modified nutrition and secretion are the marked and most prominent characteristics.”

Upon the discussion of these propositions Dr. Campbell enters, by first giving a brief sketch of the two nervous systems and their distinctive methods of action. That the cerebro-spinal nervous system

controls all æsthetic, intellectual, and senso-motory phenomena, and that the ganglionic governs circulation, secretion, and nutrition, are admitted facts. The morbid development of these phenomena must be consequent upon a coexistent morbid condition in one of these two important nervous systems. But to classify fevers into two main divisions, *cerebro-spinal* and *ganglionic*, seems to us to base the classification wholly upon the *accompanying phenomena*, without reference to the varying *causative* elements, or the morbid pathological *consequences*.

All external and internal conditions that affect the integrity of the system more or less influence the nervous system; but they do not influence that system alone; the fluids and solids of the body are all, as well as the nervous system, influenced by those causative agents which develop the morbid phenomena which we call disease. The atmosphere, in its thermal, luminous, electric, hygrometric and toxic conditions, affects the integrity and the phenomenal manifestations of the organism; and the *blood*, as affected by functional disturbances, and extraneous circumstances, not only affects the nervous system, but the healthy integrity of all the other solids of the body. "Like water absorbed into a sponge, it comes in contact with every organ, bathes and irrigates the intimate structure of every tissue, and is the source from which the cell-membrane of our ultimate component parts absorbs directly its material, either for metamorphosis into its own fabric, or for the elaboration of the secretions."

It is to be hoped that the time may come when the *causatives* of disease may form the basis of classification. It is true that time has not yet come, and until which time we are not certain anything would be lost in basing our classifications upon the pathological conditions—the immediate and essential causatives of morbid phenomenal development. Dr. Campbell says, "We here distinctly reiterate it, *we have nothing to do with the nature of the causes*; in the present discussion our search is after the *laws of phenomena*; the nature of the remote causes of these phenomena is entirely and confessedly beyond our reach and comprehension."

Dr. Campbell next enters into an examination of paroxysmal fevers, and enumerates their complex and interinvolved phenomena. In the course of these remarks he says, "Whatever jumble the phenomena of fevers may present, *each phenomenon must necessarily refer to one or the other of these two systems of nerves*. It must be either that of a sensory, a motory, a senso-motory, an æsthetic, or an intellectual aberration of the *cerebro-spinal* system on the one hand, or one of circulatory,

secretory, nutritial, vaso-motory aberration on the other, of the *ganglionic system*." P. 36.

In his discussions upon this subject, Dr. Campbell finds that the symptoms of *cerebro-spinal fevers* ally them to neuralgic and convulsive diseases, and also to many of the local inflammatory affections. Somewhat in confirmation of this, it may be urged that several observers have noticed the frequent passage of intermittent fever into epilepsy, and it is well known that neuralgic affections are much more frequent in those regions where paroxysmal fevers prevail. Pneumonia, dysentery, &c., are more or less paroxysmal, and consequently the accompanying symptoms in these diseases are said to be "for the most part an *excito-motory phenomenon*."

The question now arises why do the changes in organs, under the sway of the ganglionic system, come to observe *periodicity*, when this periodicity has been fully shown to be adverse to the *method* of that system? Dr. Campbell answers, "*Because these organs are a system of bodies acted upon by forces which are periodical, and the condition of the bodies are therefore necessarily periodical, like the forces which act upon them.*" "Recognizing this as the law of periodical excito-secretory action, necessarily constitutes it as conspicuously, THE LAW OF PAROXYSMAL FEVERS; for paroxysmal fever, in its intrinsic and elemental nature, is, in all its varieties, essentially nothing more nor less than a vast representation of a widely extended and universal periodical excito-secretory action throughout the organism."

The various secretions are subject to paroxysmal exacerbation in cerebro-spinal fevers, "*because, under these circumstances, the system of bodies or organs from which they are eliminated, are being acted upon by forces which are periodical, like the forces acting to produce them.*" The paroxysmal manifestations of excitement in the heart's action, and the variations of temperature of the surface of the body, are also explainable by the same general law.

Yellow fever and dengue fever are ranked as cerebro-spinal fevers, while typhus, typhoid and the exanthematous fevers are considered as ganglionic. The ganglionic fevers are not fully considered in the paper before us, but will be resumed in the author's next report.

In a brief notice, it is impossible to give a correct idea of the contents of a volume which is, in its nature, compendious. We have not the space at our disposal for a more extended notice of this volume, which we have read with interest, but we trust sufficient has been said to convince our readers that the work will repay the perusal for

themselves. We would gladly give Dr. Campbell's tabular arrangement of disease, but want of space will not admit.

The typographical appearance of the volume is excellent, but the book would have made a better show in the library had it other than a paper cover.

O. C. G.

The Science and Art of Surgery; being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERICHSEN, Professor of Surgery and of Clinical Surgery in University College, &c. An improved American Edition, from the second enlarged and carefully revised London Edition. Illustrated by four hundred and seventy Engravings on wood. Philadelphia: Blanchard and Lea, 1859, pp. 996.

This book has been too long before the profession to require at this time an extended notice. This edition is announced as an improvement on its predecessor, and such we believe it to be. Some things still remain in it which will hereafter require further amendments, but perfection we do not expect to find in any professional work. Were a young practitioner of limited means to ask us what work in surgery he should purchase, being compelled to limit himself to one, we should advise him, on the whole, to take this edition of Erichsen's work. It is, in the main, correct and practical; well illustrated, sufficiently clear in its style, and as comprehensive as it is possible to be, without becoming so meagre as to be useless.

P.

EDITORIAL AND MISCELLANEOUS.

—Medical education, a topic ever interesting, but at this time exciting more than usual debate in the profession, may not unworthily occupy a share of our editorial pages. The immediate occasion of the present excitement is the approaching time for the proposed meeting of professors in medical schools, at Louisville, Ky., from which some appear to expect a great deal, from which we expect nothing. Why our expectations are so moderate will, we trust, presently appear.

Still, the approach of the time appointed for this meeting, or for any other meeting, would not so much agitate the profession, were there not lying in and behind its usual calm surface a conviction that

it is time that something should be done to improve medical education in this country. In the words of those who talk most about such matters, it is time that "the standard of medical education was elevated," and every discussion turns upon the point "how to elevate that standard." Taking for our text the recommendations of the last report on this subject, made to the American Medical Association, we shall give some of our thoughts upon the general subject.

The recommendations of that committee are in brief: *First*, schools should be encouraged, and those who have no leisure or facilities for instructing pupils should not receive them into their offices; *second*, every school should have at least seven professors; *third*, all the schools in the country should commence their sessions in October, should have but one term annually, and that should be six months long, and only four lectures being delivered each day; and *fourth*, a liberal education and hospital attendance should be an imperative preliminary to admission to examination for graduation. An appendage to the report suggests that it be submitted to a meeting of the medical teachers represented by delegates from each school, who should report their opinion concerning it to the association. This is our text.

The parties who are interested in medical education are three in number, and all of them have more or less influence in saying what the degree of education required for admission to the practice of the profession shall be. These parties are, *first*, the medical profession at large; *second*, the teachers, who, through the corporations with whom they are more or less directly connected, hold the right to confer degrees; *third*, the public at large. To these there ought, perhaps, to be added a fourth, namely, the medical staff of the hospitals. This fourth power is, however, only just beginning to claim its proper influence, or, rather, is only just beginning to exercise it; and though it contains in itself the elements of great importance to the profession, we shall for the present omit reference to it.

In order, then, to improve medical education, in the cant phrase of the day, "to elevate the standard," requires not only the consent, but the co-operation of all three of these first-mentioned parties. The profession at large must consent and must aid in the undertaking, for to them, in their individual and private character, do the pupils go for advice and direction as to their fitness to enter upon the study of medicine, as to the course of their studies, as to the best time and the best place for graduating, and in general, for that direction and guidance which the neophyte in any science seeks and usually adopts. It is also no inconsiderable item contributing to their influence, that

students do, in the majority of cases, pass the greatest portion of their time in pursuing their studies in the offices of practitioners. In their power, therefore, it lies to impress upon their pupils the necessity of careful and thorough preparation for the responsible duties of the profession, or to allow them to go on heedless and careless of their studies, anxious only that their time of pupilage should be passed. The *great* power for good or for evil is, then, in the hands of the profession at large, whom some of the writers upon this subject insist upon calling, with entire absurdity, the *lay* profession.

The teachers who directly or indirectly hold the power to confer degrees, that is, the professors in medical colleges, must aid in any such attempt to improve medical education, because most of the degrees conferred upon students do come from these sources. In this State, the same power to confer degrees is possessed by each County Society and by the State Society, but it is still true that but few degrees are so bestowed. The professors do, in fact, have the control of the gate through which students enter the profession, not because they are particularly entitled to it, but because the rest of the profession have allowed them to assume it. They have then a certain power, and so long as they use it to admit unqualified persons, it is in vain for the rest of the profession to expect to put a stop to this evil.

But the public at large must assist in the undertaking, for, with our democratic institutions, it rests with the people to permit one or another party to confer the degree of doctor of medicine, and it rests with them to discriminate between the learned and the ignorant practitioner, encouraging the one or the other by their patronage and support. The difficulty arising from the too easy consent given by the public through their representatives to all who ask for authority to confer degrees, is increased by the entire independence which exists between the different States in this respect. It would be comparatively easy for the profession to inform the people of any one State upon the necessity of exercising great care in the bestowal of this authority, but it becomes impossible to convince every man, in more than thirty different States, who may be elected a representative, and has a certain authority committed to him, to confer this power.

Now, were all three of these different parties to unite to "elevate the standard," the said 'standard' would go up very rapidly, but no two can accomplish the task. For, suppose the profession at large hold back, the professors and the public cannot accomplish anything. In fact, the public would probably side with the profession, and the professors by themselves are powerless. Again, if the professors hold

back from any reforms, nothing can be done while they hold open the gates, and admit to the highest degree of the profession men who are unfit for it. Moreover, the profession and the professors can do nothing while the people are ready to permit almost any collection of men calling themselves "doctors", to confer the degree of "Doctor of Medicine" upon students.

Can any one be so foolish as to suppose that it is possible that all three of these parties should consent to unite in any measures tending to improve medical education? The indifference of the profession, as a body, to do more than *talk* about any measures of improvement, is notorious; the indifference of the professors to do anything which shall tend to lessen their fees is everywhere apparent; while a reference to the statute-book of any State will convince the most incredulous that the whole tendency of legislation, as far as it affects medical matters, is to make easier and easier the admission to the profession, and to remove all legal distinctions between the most learned physician and the most ignorant pretender; each and all of them give a negative to any such suggestion.

Were the government of our country, instead of being a democratic or representative one, consolidated into a single empire, under the rule of one person, or were there any authority in the American Medical Association to govern or to direct medical education, then, indeed, we might hope to accomplish something. But the association has no power. It has recommended and recommended, and all to no effect. If some school has acted in accordance with some recommendation, as to lengthen its term, it has soon been glad to abandon it, and to go back in the old way. The professors are greedy to get the fee for graduation, and allow many a one to slip through the green-room in safety; blinded, doubtless, by the glare of the gold in the ignoramus's hand. Nay, we have in our possession proof that a degree will be conferred by some of these gentlemen upon parties whom they have never seen, and who of course cannot have been under their instruction, provided a sufficient payment, and that not a very large one, is made. We say we have proof, because we have a letter from the executive officer of an institution to an under-graduate, offering to do this very thing, but we ought to add that it is *not* from a school in this city. The professors are, in fact, rivals of each other, and resort to most shameful proceedings to secure students to their own schools, that is, to bring money to their own pockets. It is no grateful task to expose these short-comings and misdoings, and we certainly shall not volunteer to do it; only alluding to these things, because so many

honest members of the profession seem to expect that the millennial days of medicine will not come till the professors have studied out some plan for action, which the said professors have a constant interest in not doing.

It needs no extended comment to show why we expect nothing from the proposed meeting of professors at Louisville. If a sufficient number come together to make a respectable meeting, (which we very much doubt,) their interests will be so entirely different that they can agree on nothing. If a majority are in favor of long terms, and only one session a year, there will be the Maine, the Massachusetts, the New Hampshire, the Vermont, the Connecticut, and the Albany schools, at least, which will oppose such measures, and will not be bound by any vote of any meeting. If it is proposed to make a liberal education a necessary preliminary to graduation, nobody will go for it; or rather, nobody will support it with the expectation that it will be carried out. Some may endeavor to make capital for themselves by urging it, knowing that the majority will not let it pass. If hospital attendance is made a necessary prerequisite to graduation, the city schools will probably go for it; the country schools may not oppose it, but will go on confirming degrees just as they always have done.

We put the question fairly and squarely, Is not this the common-sense view of this whole matter? Can any point of our statement be truthfully controverted? If not, and we believe it cannot, why should so much time and so much space be occupied in discussing these points, which are of no possible value practically?

But let us not be understood to say, that we despair of seeing the science of medicine make rapid progress in our country. Though much remains to be done, much is already doing to put the medical science of America on a level with that of Europe, and to make it apparent that it is so placed. All that is doing comes not from the resolutions of associations, nor from the meetings of professors, but from the good sense and diligent exertions of the individuals of the profession. And all that remains to be done must be accomplished in the same way. Doubtless the suggestion of Dr. Brinsmade, in his late inaugural address to the Medical Society of this State, viz., that a new degree should be conferred upon members of the profession after certain advances have been made in professional knowledge, contains in it the elements of a movement which, if carried out, will excite to still greater exertions to advance our science. But this power to bestow additional honors must not be extended to the schools. The

medical societies are the proper sources of it; not each petty one that results from the agglomeration of two or three practitioners, but those which are established by law for a whole State. Emulation, whether it be by *concours* or by written essays, or some other method, will probably be the basis of it, while inflexible impartiality and stern judgment will be necessary in those to whom the trust may be temporarily confided.

In brief, then, we may add, in recapitulation, that we despair of seeing the union of the three interested parties by whom the early education of medical students can be made more thorough. The people are indifferent, the professors have all their pecuniary interests in opposition to change. It is only by making the labors of the working men of the profession more fruitful of honors and of honorable emulation that the tyros can be induced to prepare themselves more carefully for their duties.

— During the first ten days of March the Medical Colleges throughout the country were busy in replenishing the ranks of the profession with new recruits, to supply the places of those who have gone from among us forever, and to fill the vacancies made by those who have been called into other paths of duty. The Colleges of this city at this time closed their winter sessions, and their graduates are now scattered over the whole country.

The *New York Medical College* was the first to hold its Commencement, which took place Tuesday, March 1st. Its class during the winter numbered 107; its graduating class 25. The *Van Arcken* prizes for the best two theses presented, were awarded to Edward S. Dunster and Hugo Stangerwald. The subject of the first was "Delirium Tremens;" that of second, "The Pathology of the Heart."

The address, usual on such occasions, was given by the Hon. James T. Brady. It was an entertaining and happy address, full of pungent hits and sharp sayings, dealing fairly with the faults of the profession, and extolling sensibly its merits. It condemned the course of the public press, which in one page reads homilies to physicians, while another is filled with recommendations of all sorts of quackeries. The false conservatism which deals unfairly with new ideas was reprobated. One remark is worthy of careful consideration. In terms of severe censure, Mr. Brady spoke of "a *secret society*—a dark fraternity, which he said he had been informed was in existence in this city, the object of which was to confine medical patronage to its members, so as to exclude from all chance of success every young and aspiring member of the profession who relied on his talents

to advance his social and professional career." The importance of Medical Jurisprudence was dwelt upon, and a case in illustration from Mr. Brady's own professional experience was cited.

The Commencement at the University of New York was held March 4. Its class during the past winter reached 350; its graduating class numbered 128. The *Mott Medals* for the best anatomical preparations were awarded as follows: Gold Medal, to George K. Smith, N. Y.; Silver Medal, Luis Fernandez, N. Y.; Bronze Medal, B. W. Sparks, Ga. The Metcalfe Prizes, for the best medical clinic, were also awarded. A beautiful Microscope, to Peter Bryce, of S. C.; A complete set of Instruments for post-mortem examinations, to R. F. Hawthorne, Ala.

The class was addressed by Dr. John W. Draper, the President of the Faculty.

At Bellevue Hospital, the ceremony of awarding the prizes offered by Drs. Wood and Elliot to the students of all the Colleges, took place March 2, in the amphitheatre of that institution. Dr. Wood's first prize of \$50, was given by the Judges, comprised of three Professors from each of the Colleges, to Dr. Socarraz, of Cuba, a graduate of the N. Y. University, and Dr. Wood's second prize of \$25, to Dr. J. D. Brumley, a graduate of the N. Y. Medical College. Dr. Elliot's prize of \$50, was awarded to Dr. E. A. Hervey, of the University Medical College.

The College of Physicians and Surgeons held their Commencement March 10. There were 58 graduates; the class numbering 180. The valedictory address was delivered by one of the graduating class, Dr. R. O. Mason. Prof. Smith announced the names of the authors of the two best theses which had been handed in, as competitors for the offered prizes. The first prize of \$50, was awarded to Robert F. Weir, of N. Y.; the second of \$25, to Geo. W. McCune, of Ind. Dr. Alex. H. Stevens addressed the Alumni of the College.

— At the first regular meeting of the Academy in March, Dr. Hinton read a report from the Section on Surgery and Surgical Pathology; Dr. S. C. Foster read a report from the Committee on Sanitary Affairs, which, by vote of the Academy, was signed by the President and Secretary, and ordered to be sent to the Legislature. Dr. S. R. Percy then read a report from the Committee appointed by the Academy to investigate the subject of City Milk, in accordance with a suggestion received from His Honor the Mayor of the City. Dr. Percy also read a report made to the Committee by himself, from which the committee reported to the Academy. A full abstract of Dr. Percy's paper will be found in another part of this

number of the MONTHLY. Dr. Francis was highly pleased with Dr. Percy's paper, and characterized it as one of the ablest papers which had been presented before the Academy. The great labor bestowed upon it, and the important results to which the reporter had arrived, demanded that it should be made known to all parts of the country.

Dr. Gardner was gratified with the conclusions of the paper, verifying as it did, the results of a similar investigation made by a committee of the Academy ten years ago. He regretted that no post-mortem examination of the cows had been made. In the previous report, referred to, several examinations of the bodies of the animals had been made. He thought that a study of the teeth might furnish some important facts; that the acid condition of the food taken would perhaps account for the early destruction of the teeth.

Dr. Dalton thought that further investigations should be made, to ascertain the cause of the changes in the chemical reaction of the milk in swill-fed cows.

At the stated meeting March 16, Dr. J. C. Dalton read a paper "On the Rapidity and Extent of the Physical and Chemical Changes in the Interior of the Body," and Dr. J. P. Batchelder finished his paper on "Compressed Sponge," commenced at a previous meeting in February.

— As the decennial period for the revision of our *Pharmacopœia* is approaching, it becomes the duty of the medical profession to direct its attention towards the selection of proper delegates, to represent them in the convention to be assembled in Washington for this purpose. As this convention determines what shall be *official* preparations, and gives the rules for their preparation, it is of the greatest importance that men with a thorough knowledge of chemistry and pharmacy should form the delegates sent to its sessions. Nothing can be more important than a perfect uniformity in the composition and strength of *shop preparations*. This is necessary for the protection of the physician and the apothecary, as well as the patient. We cannot secure such uniformity *by law*, in our country of restless desire for novelty and change, and hence the necessity of endeavoring to effect it by general agreement on the part of physicians and pharmacutists. The effect of such a convention, as that proposed in 1860, will be more salutary than any of its predecessors, as the profession is becoming alive to the rapid advances, of science and more disposed to make them available.

Not only is there required a revision of formulæ, but also of nomenclature, so that some of the exploded chemical terms, now employed, may be driven from the shop, and no more be seen on our prescrip-

tions. If there are no such chemical compounds as *muricates* of the inorganic elements, why retain the name, thus stultifying ourselves by retaining the traces of an ancient error? We trust that medical societies will appoint delegates at an early date, so that the latter can consult on the necessary changes in the Pharmacopœia before the time for the assembling of the convention.

— Dr. Thomas D. Mütter, late Professor of Surgery in the Jefferson Medical College, of Philadelphia, died at Charleston, S. C., on the 16th day of March, aged 60 years. It is a loss to the profession, not easily made good. In our student days we listened to him with great delight and profit, and our admiration of him was profound and sincere. He has long suffered from ill health, which has for some time interfered with the practice of his profession, but the announcement of his death was to us unexpected. Though our personal acquaintance with him was limited, we feel that we have lost a real friend, while our profession has lost a most brilliant ornament.

NEW YORK, February 20, 1859, }
791 Broadway. }

EDS. AM. MED. MONTHLY—Your note is just received. I have to regret that I shall not be able to give you, in time for publication in the April number of the MONTHLY, the paper on my views of the chief causes of Pulmonary Consumption, with my recent investigations into the process for its arrest or cure.

As stated to you in conversation, I not only propose to enter into the discussion of the disturbances of the digestive and assimilative functions, by which a tendency is generated for the production of tuberculous disorders, or through which an individual, from hereditary transmission, may be rendered more prone to their access; but I will enter into the detail of my present views, of affording to the lung-structure itself, by means of inhalation and superficial absorption, such nutrient elements as normally constitute the blood of the tissues, by which a return to soundness may be induced, these elements already being deficient or depraved. I shall also endeavor to show that the vital capacity of the depressed general system may be so increased through remedial application to the bronchial and exterior surfaces, that the reproductive changes, so highly essential to the re-establishment of health, may ensue; whilst the proclivity towards pulmonary consumption, in those yet comparatively unaffected, may be retarded or eradicated.

In one of the numbers of the MONTHLY, early following, I hope to have time to publish these views more *in extenso*, wishing that they may serve to attract the attention of the profession to renewed experiment in the direction now opened, and that of the public to a greater observance of those sanitary measures so practically important to its healthy condition.

I have the honor to remain yours, very obediently,

H. P. DE WEES.

THE AMERICAN MEDICAL MONTHLY.

M A Y , 1 8 5 9 .

ESSAYS, MONOGRAPHS, AND CASES.

Notes of the Chemical and Medical Testimony in the late Remarkable Trial for Poisoning by Arsenic, in New York City, known as the Stephens Case. By L. J. B.

After a protracted trial of nearly three weeks' duration, the jury in the case of "The People *vs.* James Stephens" for the murder of his wife by poison, returned on Saturday morning, March 26th, a verdict of "Guilty." It would be foreign to the purpose of this Journal to give our reasons for believing this verdict to be a righteous one, and fully sustained by the evidence on which its rendering was based, or to follow through all its tortuous windings, the unusual, and somewhat erratic course of the trial, to note the well-arranged argument and masterly analysis of testimony by the prosecution, or the ingenious and artful strategies of the defence; still more foreign, to bring to the eyes of our readers the mass of revolting detail which was unfortunately, but perhaps unavoidably, elicited from witnesses for both sides of the case. Our only object at present is to draw attention to the medical and chemical testimony in the case, which, we believe, is the most complete, satisfactory, and conclusive ever brought before a jury in this or any other country.

The facts of the case, as far as we have to deal with them, are, according to the evidence for the prosecution, partly corroborated by that for the defence, as follows:

The prisoner's wife, a robust woman, weighing 160 lbs., 46 years of age, enjoying the usual degree of health, began, about three weeks before her death, to feel indisposed, complaining of a sensation of heat in the "chest." A physician called in at that time discovered no indication of disease sufficient to make treatment necessary, and told her that she would be well in two or three days.

The symptoms, however, steadily increased in violence, the sense of burning being located at the epigastrium, and vomiting soon setting in. The vomiting always followed the ingestion of food or liquid after a very short interval, five to fifteen minutes; and in from ten to twelve days from the visit of the first physician a second was called in. He testifies to finding her at that time suffering under the symptoms of a severe gastritis, with considerable prostration, and an indisposition to talk. He considered (in answer to questions from counsel) that it was not a case of cholera, of cholera morbus, or of bilious colic.

His prescriptions at this time were the following: nitrate of potassa half a drachm, compound powder of ipecac. twelve grains, to be divided into six powders; sulphate of quinine twenty grains, ox-gall one drachm—make twenty pills; a plaster of cantharides to be applied to the epigastrium, and the resulting blister to be dressed with an ointment composed of simple cerate half an ounce, sulphate of morphia three grains; and sulphate of morphia one grain, white sugar ten grains, to be divided into four powders. These prescriptions are mentioned in the order in which they were given on three consecutive days, the 19th, 20th, and 21st of September, 1859.

We introduce these prescriptions in full, as we wish to comment on the somewhat remarkable testimony of the medical witnesses with regard to them, when we reach that part of the subject. The action of the blister was to ameliorate for a short time the violence of the vomiting, which, however, soon returned with redoubled violence. The matter vomited, at first a yellowish fluid, gradually became green, and towards the close of the case assumed a dark color, bordering on brown. It contained spots of blood, (which the prisoner suggested to one of the witnesses, at the time, might be "pieces of her liver,") and a tough ropy mucus, which could be lifted out of the vessel on a stick, to which it adhered in a string.

The burning pain now became agonizing, being described by the patient as feeling like a "ball of fire," generally in the stomach, sometimes seeming to rise in the throat. She suffered from a constant and burning thirst, drinking with avidity all fluids that were offered her, even though aware of the distressing vomiting which would inevitably

follow their prehension. The list of these drinks alone is enough to indicate this fact: water, tea, coffee, milk and water, buttermilk, lager beer, lemonade, and brandy are mentioned. During the last week of her illness the patient complained of coldness of the extremities, although her face was flushed. Its expression is described as having been languid and anxious, with a peculiar sharpness of the eye during the last day or two. The countenance "changed," and the eyes became sunken. A hesitancy in answering questions was noticed. The prostration steadily increased. In the course of the last week, partial anæsthesia occurred in the hands, with slight impairment of voluntary motive power, and convulsive tossings of the arms; the feet and legs became slightly œdematous, the lips were swollen; the urine was scanty and high-colored, and irritating to the urethra. Diarrhœa set in about thirty hours before death, the evacuations being dark-colored and offensive. The respiration, which had before been hurried, became now difficult and labored. The mind, which had been entirely unaffected, yielded to a species of stupor, interrupted once by a wild scream, on being raised, and the scene closed with complete collapse. It is alleged by a credible witness that within a space of ten hours during the last day, a quantity of laudanum, amounting to probably *three ounces*, with a *pint* of brandy, was administered by the prisoner to the deceased.

Suspicious, if any were then entertained, were not expressed at the time, and the woman was quietly interred in Greenwood Cemetery.

The body was committed to the earth on the 23d of September, and a year and a day after, on the 24th of September, 1858, was exhumed by the order of Coroner Connery, and in his presence, and identified by relatives. It was removed with great care to the dead-house at Bellevue Hospital, and there examined by Dr. James R. Wood, in the presence of Prof. Doremus, his assistant Dr. Zenker, Dr. Woodward, Dr. Gouley, the curator of the museum, and several of the Hospital Staff. Dr. Wood's statement of the post-mortem appearances is so interesting that we give it entire. He testifies: "I caused the body to be removed from the coffin by an assistant in the hospital; it was removed without dismemberment; I examined the anterior surface of the body, for the purpose of ascertaining its condition; I found the skin of a dirty-yellow color, in a very remarkable state of preservation; it had not shrunk any, and was plump and full; the face, sides of the head, with the anterior portion of the skull, were in an advanced state of decomposition; then I made a posterior examination, by turning the body over; with the exception of the scalp, it presented the same appearances the anterior did; the scalp was decomposed; I then made

a dissection of the anterior portion of the body, from the sternum to the pubis, in the mesial line; this brought into view the anterior portion of the liver, the stomach, the colon, and the omentum; the liver, stomach, and colon were in a remarkable state of preservation; the stomach and omentum were well preserved, and loaded with fat; the other viscera of the abdomen were examined before I commenced to remove them; they were also apparently healthy and well preserved; I then proceeded to remove the viscera of the abdomen—first by applying a ligature round the cardiac orifice of the stomach, and another round the pyloric orifice; this was handed to Dr. Doremus, and placed in a vessel prepared for the purpose; I then removed a portion of the intestines, which were also placed in a vessel prepared by Dr. Doremus; the intestines were examined, and their internal lining were found in a remarkable state of preservation, and but little fluid contained in their cavity; the remaining portions of the intestines, the uterus and its appendages, were given to Dr. Doremus for examination; the cavity of the peritoneum or belly contained nothing, except two or three ounces of oily matter, which had percolated through the tissues, which were loaded with fat; this examination was made without opening into the cavity of the thorax, which was next opened; we found the viscera therein contained wonderfully well preserved; the lungs and heart were remarkably well preserved; the other tissues, with the pleuræ, were remarkably dry; not a particle of moisture was discovered on the surface; I then proceeded to examine the head and face, to find if there was a bruise which was said to have existed at the time of death, but decomposition had so far advanced that it was impossible to note anything; the brain was in an advanced state of decomposition, melting upon pressure of the hand or scalpel; a portion of it was given to Dr. Doremus; I examined the muscular tissues of the body; they had not lost their coloring matter, and were still red; as well preserved as many bodies that I have seen in the dissecting-rooms of country colleges; the shroud, the napkin placed about the nates and vulva, were also handed to Dr. Doremus; some cotton found in the mouth was also given to Dr. Doremus for examination; I examined the interior of the stomach at Dr. Doremus' house, after he had removed its contents; the mucous membrane was hard, much harder than natural; there was no redness of the stomach; the veins were large, as if they were congested; the contents of the stomach were unusually small; this smallness might be accounted for by the contents having been ejected before death, or from the patient not having taken any substance into the stomach for a long time before death; there was a peculiar odor

from the body; not an odor from decomposition; I cannot account for it in any other way; I never smelt anything like it before."

The remarkable preservation of the body, or at least those parts of it more immediately contiguous to the alimentary canal, cannot fail to claim attention, as well as the peculiar dryness of the pleural cavity. The testimony of Dr. Doremus, with regard to the chemical examination of the body, was distinguished for its clearness and precision, and embodied the details of the most careful, laborious, and scientific investigation of the kind ever made, we say with confidence, in this country, and perhaps in the world. We certainly have never met in any foreign journal, and we have given the subject some little attention, the details of an analysis which will compare with it for nicety and completeness. To give the full account of all the processes through which various portions of the body were carried would occupy too much time and space, interesting and instructive as they are. We shall, therefore, confine ourselves to specimen extracts from his report to the Coroner's jury. We may premise that not only were the jars, in which the viscera were removed to Dr. Doremus' laboratory, new and thoroughly cleaned, but that every piece of chemical apparatus, crucibles, retort, receiver, gas-burner even, was also newly purchased for the purpose, and most thoroughly tested. This was also of course the case with the chemicals themselves, salts, acids, &c., and in some cases they were even manufactured on the spot in order to insure perfect purity.

A great portion of the investigation, too, was carried on in a small laboratory fitted up for the purpose, entirely separate, and at a distance from any other laboratory, where no suspicion of the previous presence of the slightest trace of the suspected mineral could exist. The doors of his room, as well as the windows, were kept under seal, and the keys retained by Professor Doremus and his assistant, no one else being allowed access. In short, no measure was omitted which could conduce in any way to the perfect justice and truth of the results obtained, or which could inspire confidence in them in intelligent minds. As a simple instance, the hydrogen gas which was to be used in one of the examinations by Marsh's test, was passed through not a simple straight-heated tube, as is usual, but through a coil of heated tube several feet in length; and not for a period of half an hour, or even two or three hours, which is generally the maximum, but for upward of one hundred and forty hours, before introducing the suspected liquid. And this, after the various chemicals singly had been carefully tested and proven pure. Much of the zinc that was used was obtained from

the New Jersey mines, which are known to contain no arsenical ores. The Professor's testimony, clear and explicit in itself, was greatly elucidated by admirable drawings of the apparatus used, (executed by Plunkett,) and by specimens of the different stains obtained presented in sections of the tubes in which they first formed, in watch-glasses, &c.; such specimen having opposite to it, on the card to which they were all attached, a record of the experiment of which it represented the result; thus affording to the jury an ocular demonstration of the existence of the poison in considerable quantities, and in every tissue of the body, in a conclusive manner that words alone could not have done.

But to proceed with the analysis. "The stomach, which was in a remarkable state of preservation, was found to contain a small quantity (not more than a tea-spoon full) of a substance resembling coffee-grounds, which on analysis yielded no indication of opium, or of any metallic poison."

It is on evidence that when the body was placed upon its side after death, a large quantity of dark fluid poured from the mouth on to the floor on which it was lying. This will account to a considerable extent for the emptiness of that organ.

"The small intestines, which were also unusually well preserved, were nearly empty, but lined with a thin layer of a yellowish pasty material, which, after previous preparation, was examined with an apparatus for generating hydrogen gas, and decomposing by heat, compounds with which it might be associated, (a modification of that known as Marsh's test.)

"Although this was employed beyond the time usually recommended, it only afforded a faint stain of an orange tint, with a metallic lustre, resembling one of the sulphurets of arsenic.

"The large intestines were found slightly reddened in parts of the colon and of the rectum, and contained a small quantity of a brown pasty substance, which, on examination by the hydrogen apparatus, yielded an orange-colored stain, like the preceding.

"Several portions of the liver, of the kidneys, and of the lungs, were prepared by different chemical processes for the aforesaid apparatus, from which stains of yellow and brownish-yellow hues were procured."

As the deponent had never before met with similar results by this process, and was unable to learn that similar results had been obtained by others, and suspecting that the presence of sulphuretted hydrogen from the putrefying materials under examination, by its de-

composition at a red heat, in connection with the decomposing arsenicated hydrogen, produced the yellow sulphuret of arsenic, the experiment was tried at deponent's laboratory, at the Medical College, of passing these gases at the same time through a glass tube heated to redness. Stains were produced identical in appearance with those obtained from the viscera before referred to. One of the yellow stains from the liver was then tested, by passing a gentle stream of pure and dry oxygen gas through the tube containing it. On applying heat, the stain volatilized, and was gradually urged through a coil of glass tubing a foot and a half in length, heated to redness. As anticipated, the sulphur was converted into sulphurous acid gas, and the arsenic into arsenious acid. The latter was deposited as a faint white stain on the cool glass, beyond the coil. It was dissolved in a few drops of distilled warm water, and found to respond to the chemical tests for arsenic.

"Another portion of the liver was submitted to a modification of the other chemical processes yielding yellow stains. One of these was tested in the manner described, and afforded faint traces of arsenic. Eight ounces of muscular tissue were dissolved in hydrochloric acid, with the addition of a small amount of chlorate of potassa, and then treated by chlorine gas and by sulphurous acid gas, which, when tested by the hydrogen apparatus, produced the yellow stain, with iridescent play of colors. Owing to the peculiar nature of these stains, and to their faintness, which permitted only a partial proof of their arsenical character to be exhibited, deponent deemed it essential to submit the entire body of the deceased to chemical examination."

A word or two of explanation is here necessary. Subsequently to making this report to the Coroner's jury, but before giving his evidence on the trial, Professor D. discovered in a standard work on the subject an exact description of these yellowish stains with an iridescent display of colors, as resulting from the presence of sulphuretted hydrogen in such circumstances and from such causes.*

An attempt was made by the defence, in their over-anxiety to save the life of the prisoner, to prove that, at this stage of the examination, Professor Doremus himself was not convinced of the existence of arsenic in the body. The most cursory reading of the above testimony will show that such an idea is simply absurd, when it is distinctly stated that sulphuret of arsenic and arsenious acid were

* A foot-note in Guy's "Forensic Medicine."

obtained, visibly to the eye, and that, in solution, the latter responded to all the liquid tests.

The ground on which this ridiculous charge was based was this: Great and uncalled-for complaint was made by certain interested parties—among them, we think, the counsel for the defence—because so long a time was occupied by Professor D. in making his analysis. In apologizing, with a courtesy which was scarcely reciprocated, and which subsequent events have shown was entirely undeserved, for this apparent delay, he stated that he “would have been unable at this stage of the analysis to *present* the *Coroner* and *jury* with testimony of a positive character”—*positive*, that is, to a jury of twelve unscientific men, who are not in the habit of dealing with such delicate results as are afforded by the minute elaborations of the retort and the crucible, which may nevertheless be perfectly satisfactory to the expert, who is familiar with them, and appreciates their full force at a glance—men who must have something tangible presented to their senses, in order to convince their minds. He was fully assured, from the developments afforded by the small portion of the remains which he had already examined, that a quantitative analysis of the entire body would enable him to present to these men a *weighable* amount of the deadly mineral, on the presence or absence of which their verdict was, in a great measure, to turn; and he was unwilling, and properly so, that, where so sacred a thing as human justice was at stake, any effort should be spared upon his part which could tend to produce in their minds the firm conviction which already existed in his own—viz., that the body of the deceased woman did contain arsenic in poisonous quantities.

In pursuance, then, of this intention—namely, of presenting to the jury *weighable* amounts of arsenic obtained from the body, and of giving them an approximate idea of the probable amount of the mineral which it contained—he proceeded to examine the whole body.

“With the assistance of Drs. Zenker and B. L. Budd, the soft tissues, which were in a remarkable state of preservation, were dissected from the skeleton, and examined by several different chemical processes.”

It will not be less interesting and instructive to the medical profession than it was to the jury to hear the details of some of these processes, as showing to what a degree of refinement this department of the science of toxicology has now arrived; and the fact that it was only twenty years ago—in 1839—that Orfila first announced to the world that he had been able to obtain indications of the existence,

and consequent previous introduction, of arsenic in the tissues, as well as in the contents of the alimentary canal, indicates that, in the grand march of the sciences, it is not lagging behind.

PROCESS No. 1.

“About ten pounds of muscular and adipose tissue from the remains of the deceased were placed in a new, clean, and capacious porcelain crucible, acted upon by strong sulphuric acid and heat, for thirty-three hours, the mass being stirred every few moments with a porcelain spatula. When it had assumed a pasty condition, one-third was removed for a second chemical operation. The remainder was heated to dryness. During the last twelve hours, deponent and his assistant alternated in incessant stirring of the mass. The whole operation was most nauseating and disgusting. The black powder (resulting) was heated over a water-bath, with strong nitric and hydrochloric acids, to dryness; then with hot distilled water, and filtered; the filtered liquid was then introduced into the hydrogen apparatus, and afforded the black metallic-looking stains contained in tubes marked vi. and vii.”

PROCESS No. 2.

“Four pounds, four ounces of muscular and adipose tissue from the body of the deceased, cut in fine pieces, were placed in a new and clean glass retort; and, to avoid loss, a receiver was adapted, with a bent tube, passing into a beaker-glass of pure water. Pure hydrochloric acid was added, and heat from a gas furnace applied for fifteen hours. About eight ounces of a light pink-colored liquid distilled over into the receiver, which was reserved for examination. One-half of the contents of the retort was treated with chlorine and sulphurous acid gases, evaporated, and tested in the hydrogen apparatus for five hours—producing a faint dark metallic stain. The portion remaining in the retort was heated again, and chloride of potassa was gradually, in small quantities, added, till a clear orange-colored liquid was obtained; this was filtered, and pure, washed sulphurous acid gas passed through it for three hours, until it was completely saturated.

“It was warmed over a water-bath, to expel the excess of sulphurous acid. Pure, washed sulphuretted hydrogen gas was passed through the liquid for sixteen hours, producing a yellow precipitate; that was allowed to subside during eighteen hours.

“The greater part of the liquid was decanted, and the precipitate

poured on a small filter, (of Swedish paper,) and repeatedly washed with warm distilled water.

"The precipitate and filter were dried in a warm bath, placed in a porcelain crucible, and digested with pure nitric acid.

"The acid was neutralized with pure carbonate of soda, and evaporated to dryness in a water-bath.

"The contents of the crucible were fused over a gas furnace till the organic matter was burnt, and a clear, colorless liquid obtained.

"The nitric and nitrous acids were expelled by pure sulphuric acid, and the remaining salts dissolved in a small quantity of distilled water.

"An apparatus for generating pure and dry hydrogen gas was prepared, and attached to a glass tube three feet in length, so coiled that two feet of it were heated red hot over a gas furnace.

"In other cases, *two or more of these coils were united*, thus enabling the operator to increase the heated surface *ad libitum*; thereby insuring the complete decomposition of any of the compounds of hydrogen.

"To test the purity of the hydrogen, it was passed through a red-hot coil for an hour and a half. No stain was produced upon the cool portion of the tube beyond where the heat was applied.

"The zinc and the sulphuric acid thus employed were known to be pure; (they had been previously and repeatedly examined for several hours.)

"Almost immediately after the introduction of the suspected liquid obtained from the muscles as described, and which was reduced to half an ounce, a dark stain, with metallic lustre, resembling arsenic, appeared beyond the heated glass coil; this was allowed to accumulate for two hours.

"On introducing a bubble or two of air through the hydrogen apparatus, a slight oxydation of the metal occurred, and the characteristic garlic odor of burning arsenic was distinctly recognized.

"The hydrogen apparatus was removed, and the arrangement for passing pure and dry oxygen gas was applied at the opposite end of the glass tube.

"The coiled portion was continued at a red heat, lest, on cooling, it might fracture.

"A gentle stream of oxygen was passed through the tube, and the greater portion of the dark stain was gradually volatilized by the heat from a spirit-lamp.

"About an eighth of the metallic stain was reserved for exhibition in a tube.

"The vaporized arsenic mingling with the oxygen at a red heat, as it was urged through the coil, was converted into arsenious acid, which appeared as a white deposit on the cool tube, beyond the heated coil.

"The tube and stain were removed, and heated with a few drops of distilled water, in a new and clean test tube.

"The white deposit dissolved immediately."

The solution thus obtained was subjected to all the liquid tests, and responded to them promptly and conclusively. It is unnecessary to repeat them here.

Other portions of the viscera and tissues, muscular, osseous, tegumentary, &c., were subjected to different modifications of this and to other processes, which we cannot detail here. Suffice it to say, that they corroborated fully the results obtained by this, and that a quantitative analysis of the heart, a portion of the lungs, liver, and kidneys, with the small and large intestines, the spleen, pancreas, omentum, bladder, and uterus, weighing together 7 lbs., 3 oz., gave as a result 0.185 grains, nearly the fifth of a grain of arsenious acid; which, when the necessarily large deduction for loss is made, shows not an infinitesimal quantity, a mere suspicion of arsenic in the viscera, but an unusually large amount, especially when we consider the space which had elapsed since death.

The following details of one of the processes, conducted subsequently to the Coroner's jury, will show the extreme nicety with which the quantitative analysis was made.

Two pounds, two ounces of muscular tissue were treated with hydrochloric acid over a water-bath. (This hydrochloric acid, although purchased as a pure article, had been previously diluted, then treated for several hours with sulphuretted hydrogen, without discovering the slightest trace of arsenical impurity—heated and distilled.) Pure chlorate of potassa was occasionally added, to facilitate the breaking up of the mass. The fluid so obtained was filtered, and sulphurous acid gas passed through it for an hour and a quarter, in order to convert the arsenic acid into arsenious acid, and so facilitate the precipitation by sulphuretted hydrogen. This latter gas was then passed through it for several days. The fatty matters remaining on the filter were treated with caustic potassa over a water-bath, as a higher temperature would have caused the escape of the chloride of arsenic. This was then treated by hydrochloric acid, filtered, and sulphuretted hydrogen passed through the filtered liquid. The yellow precipitates on the filter were treated with ammonia, in order to dissolve the sul-

phuret of arsenic; but, as organic sulphurets are frequently associated with this metallic sulphuret, it was considered necessary to deoxydize these with pure nitric acid. This was neutralized by caustic soda. Pure nitrate of soda, entirely free from chlorine, manufactured on the spot, was then added, and the whole mass fused into a clear, colorless liquid, which solidified, on cooling, into a white cake, consisting principally of the arseniate and nitrate of soda. This was dissolved and filtered, to remove the antimony, if any were present. Pure sulphuric acid was then added to drive off the nitric acid, and sulphurous acid gas passed through, in order to deoxydize the arseniate into the arsenite of soda. The sulphurous acid in excess was expelled by a gentle heat. Pure, washed sulphuretted hydrogen was then passed through, and a yellow precipitate was thrown down. The filters were washed with sulphuretted hydrogen water, in order that no oxydation might take place. This precipitate was then dissolved in dilute ammonia, and collected on a weighed watch-glass, and itself weighed, after being evaporated to dryness. Now, it is usual to estimate the weight of arsenious acid directly from the sulphuret; but Professor Doremus, in consideration of the fact that there is sometimes an excess of sulphur present, and wishing to make everything as fair as possible for the prisoner, adopted the following extremely ingenious method of obtaining the desired result: The sulphuret was treated with nitric acid, by which means the sulphur was converted into sulphurous acid, and the metallic arsenic into arsenic or arsenious acids. This sulphuric acid was precipitated with nitrate of baryta, and a white sulphate of baryta thus obtained. This was weighed, and from this the amount of the sulphur was estimated, as it could be with perfect exactness. This weight of the sulphur was deducted from that of the sulphuret, leaving the weight of the metallic arsenic, which was estimated as arsenious acid, by the addition of its proper equivalent of oxygen.

It was hinted, in the course of the investigation, that the defence had medical witnesses who were prepared to testify that arsenic existed in the human body in its normal condition, and that therefore the discovery of a small amount of it in a cadaver was no proof that it had been introduced from without; that arsenic was found in pretty much all soils, and that it was contained in wood, iron, paper; in short, that everything in the universe was more or less impregnated with this fearful poison.

The medical men who might, at first thought, without looking into recent authorities on the subject, have been inclined, from some care-

lessly-received impression, to support the first of these doctrines, concluded, before they were called upon the stand, that, in the present state of medical science, this idea was not tenable, and consequently testified directly the reverse; while the medical man who, instead of testifying to the other, and perhaps still stranger allegations, was not brought forward by the counsel for the prisoner.

The medical testimony for the prosecution was clear and consistent. Besides Drs. Doremus and Wood, four of the prominent physicians of the city were called upon. They were, Drs. Detmold, Macready, Barker, and Jones.

Dr. Doremus, on being called upon, at the close of his chemical testimony, to detail the symptoms of arsenical poisoning, not considering himself an expert in medicine, referred to the tabular results of an analysis of two hundred cases reported in the various journals at home and abroad, made by Dr. Benjamin Lee, which he considered as sufficient basis for the opinions expressed by him on that subject. This table he introduced for the inspection of the court. (See next page.)

The important points in the medical testimony which may be considered, from the unanimity with which they were testified to, although in different ways, may be summed up as follows, and will certainly be of value to medical men called upon to testify in similar cases. As they are the final and deliberate conclusion of six professional men of great intelligence and no little scientific erndition, they have almost the force of laws; and even though they may separately have all of them been enunciated before, their reassertion in a body will certainly add much to their force:

1st. Although certain idiopathic diseases may resemble arsenical poisoning in certain features, there is no disease which combines *all* its peculiar symptoms; nor is there any reported case of a combination of the several diseases which resemble it in its different classes of symptoms. Even the witnesses for the defence, while maintaining theoretically the possibility of such combination, acknowledged that a case exhibiting it had never fallen under their notice; nor could they refer to any reported case to sustain their theory. *The diagnosis of arsenical poisoning* is therefore not only possible, but, unless in the presence of an epidemic of Asiatic cholera, is comparatively *easy* and *suggestive*—that is, where the entire case is brought to the view of the observer. Circumstances may be present at any one time during its course, which will mask the diagnosis. Dr. Macready was particularly clear and decided upon this point.

ANALYSIS OF TWO HUNDRED CASES OF ARSENICAL POISONING,

By BENJAMIN LEE, M.D.

Note.—The symptoms are presented in the order of their frequency.

		No. Cases.			No. Cases.
Preparation. . .	Arsenious acid	152	Eyes	Injected	15
	Arsenical solution	23		Watery	8
	Arseniuretted hydrogen	4		Sunken	10
	Arsenite of potassa	3	Urine	Brilliant	4
	Arsenite of copper	3		Dark and scanty, or entirely suppressed	19
Manner of administration. . .	Yellow sulphuret of arsenic	4	Rectum	Excoriated	7
	By mouth	163	Ptyalism	Present in	5
	Inhaled	4		Absent in	1
Object of administration. . .	Applied to surface	31	Eruptions	Present in	3
	Homicidal	45		Absent in	
	Suicidal	56	Termination	Death	95
Vomiting	Accidental	38		Recovery	105
	Medicinal	31	Manner of death	Collapse or exhaustion	51
	Present in	182		Convulsed	6
Matter vomited	Absent in	6		Calm	1
	Brown	5	Post-mortem examination	Asphyxiated	3
	Yellowish-green or dark	24		Comatose	7
Fain	Bloody	10	State of body	Recorded in	77
	Mucous	7		Remarkably preserved	9
	At epigastrium	92	Œsophagus	Rigidity of muscles	6
Pulse	In abdomen	26		Inflamed	10
	Burning in throat	38	Stomach and intestines	Pale	2
	In epigastrium & abdomen	25		Inflammation of mucous membrane of stomach	64
Thirst	Constriction in throat	11		Inflammation of mucous membrane of intestines	47
	Headache	8	Blood	Softening of mucous mem.	11
	Absent	15		Ulceration of do. do.	8
Diarrhœa	Small and rapid	73		Perforation	2
	Small	37	Heart, &c.	Healthy stomach	7
	Rapid	12		Fluid, or very slightly coagulated	15
Evacuations	Full	15		Spots of extravasation underlining membrane of ventricles	7
	Natural	1	Lungs, &c.	Healthy	14
	Slow	1		Soft	6
Countenance	Present in	88		Hard	2
	Absent in	7	Bladder of urine	Fluid in heart-sac	5
	Present in	99		Engorged	11
Nervous disturbances. . .	Absent in	21		Normal	21
	Dark and fetid	41	Kidneys	Collapsed	2
	Bloody	18		Fluid in pleura	2
Mind	Slimy	7		Contracted	12
	Very fluid	7	Brain	Full	1
	Pale and haggard	66		Inflamed	1
Skin	Excited and anxious	46		Congested	9
	Edematous	9	Liver	Healthy	11
	Calm	5		Congested	9
Tenderness	Flushed	17		Healthy	2
	Prostration	36	Contents of alimentary canal	Congested	5
	Paralysis	18		Softened	2
	Cramps	21		Healthy	12
	Syncope	14		Reddish-brown fluid	4
	Convulsions	20		Mucus	3
	Absent	10		Yellow spots	5
	Clear	65		White grains	8
	" with drowsiness	12		Yellow scales	4
	Delirium	16		Greenish fluid	3
	Confused	2		Yellowish fluid	5
	Of abdomen	42		Cyst with partly organized walls, containing crystals of arsenious acid	1
	Of epigastrium	21			
	Of both	3			
	Of tongue	3			
	Absent in	16			
	Cold	36			
	Hot	25			
	Cold and moist	26			
	Cold and dry	1			

2nd. The minimum quantity of arsenic which will produce death may, for the present, be safely stated at from two to three grains. (*Vide* "Ranking's Abstract," 1847, vol. i., p. 294.) It is very probably less; but there is at present no case reported on which it would be safe to base such an assertion. That of Sir B. Brodie, where one and a half grains were thought to have caused death, was complicated with cancerous disease of the tongue in its last stage; which, apart from its own debilitating effect on the patient, would also permit a solution of the poison to enter the circulation through the ulcerated surface, and so to produce its fatal result more promptly and more powerfully.

3rd. The effect of laudanum on a patient already suffering from a poisonous dose of arsenic would be to *mask* the *symptoms*, not to interrupt the destructive process. Pain would be partially relieved by it; vomiting might be checked to some extent; and as this is an important means of relieving the stomach of contained poison, its fatal effects would be in this way rather hastened than retarded. As it is a nervous stimulant, it would support the rapidly-failing strength, and it is probable that the intense pain under which the patient suffers would render him very tolerant of it.

This portion of the testimony was very explicitly given by Professor Barker.

4th. In almost the precise language of Dr. Detmold, "The *non-existence* of the already described *post-mortem* appearances *proves nothing*; their existence (in cases where there is other evidence pointing to death by arsenic) is proof positive." The latter clause of this dogma requires, perhaps, a little modification; but the former is established beyond a doubt.

5th. The existence of a certain amount of arsenic in the tissues of the body leads almost necessarily to the conclusion that a much larger quantity has been taken into the stomach, as a considerable portion of the dose would, in the great majority of cases, be thrown off either in vomiting or purging, or both; and in a case lasting over twenty-four hours, much would be eliminated by the various emunctories. In order to determine the time within which arsenic began to be eliminated by the kidneys, Professor Doremus took the sixteenth of a grain of arsenic in solution three times during the course of a day, and preserved the urine passed during the twenty-four hours immediately following the prehension of the first dose. This urine furnished abundant stains of metallic arsenic. This was more especially elicited in the examination of Drs. Macready and Jones.

6th. Arsenic is not a normal constituent of the human frame, either before or after death.

These six conclusions, thus definitely stated, have, we repeat, a very great worth; and as no practitioner is exempt from the possibility of a call to the witness-stand, we recommend them to the consideration of all our readers.

We purpose in a future issue to remark still further on some of the prominent points of this interesting case, and to consider the medical testimony for the defence, which, though in the main corroborating that for the prosecution, had still some peculiarities of its own which deserve mention.

The Causes of Pulmonary Consumption, and its Treatment by Superficial or Endermic Applications and the Inhalation of the Nutrient Elements of the Blood and Tissues. By H. P. DE WEES, M.D., New York.

The blood from tuberculous subjects is found to be liable to certain alterations from the healthy state. The noticeable deviations consist chiefly in the imperfection of the elaboration of the fibrin; the decrease, in general, of the red corpuscles, and the increase of the so-called white or colorless corpuscles. Such defects must necessarily affect every process of nutrition.

Although every organ comes in for a share in this depreciated quality of the blood, yet the lungs, the mesenteric glands, and brain become the chief locations for the deposition of tubercles. They may invade by solitary deposits, or by disseminations through the tissues, with symptoms easily recognized in the plurality of cases; or, by a most insidious infiltration of one or both lungs, the only noticeable deviation from health being the gradual, but at first hardly perceptible, difficulty of breathing, or its increasing rapidity. Sometimes, while the congestion is accruing in the pulmonary cells, a deceptive disturbance in the functions of the stomach serves, for a time, to detract from suspicion of any error in the lungs.

Although the composition of tubercle varies under certain circumstances, it is found convenient, for practical purposes, to divide it into two conditions: the plastic and the aplastic. In the first we have the gelatiniform, semi-transparent, gray, miliary tubercle, possessing traces of abortive or degenerated organization; while in the second or aplastic, no relics of organization are discoverable, the mass being

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what we know as the crude, yellow tubercle, granular, and disposed to soften.

The character of these tuberculous deposits depends on the condition of the blood, and the vital capacity of the tissues invaded. The plastic tubercle may degenerate into the lower grade of the aplastic, but the latter never advances into the former by any progressive change.

As above observed, infiltrated and also interstitial tubercle is insidious in its derangement of the natural nutritive process of the lung tissue, the disintegrative deposits being of a microscopic character. They frequently escape detection during life, and even under post-mortem examinations, as the symptoms do not distinctly differ from those of sub-acute inflammation, unattended by tubercular depositions; whilst the pathological conditions are apt to be regarded, on common inspection, as the mere lymph products of the previous inflammatory actions.

In lungs which have been previously damaged, the state of the blood may assist in the corroboration as to their tuberculous depravity. Although inflammation of the lung may become the parent of tubercle, it does so only under certain conditions of the blood, already degenerated; or from disturbances in the *harmony of assimilative relation* in the tissues themselves. It is a fact to be remembered, however, that the *locale* of tubercle is not usually the seat of the preceding pneumonia, which more frequently attacks the middle and lower portions of the lungs, whilst tubercle chiefly invades the upper. When either the lungs or mesentery have been stealthily encroached on by tuberculous depositions, inflammation is prone to arise, and then the errors of the blood become manifested by rapidly-increasing deposits.

Although acute, or hasty consumption, is caused in a great measure by the rapid evolution of tubercles, and their consequent impairment of the function of the lung, yet this alone cannot serve entirely to account for the speedy waste and dissolution that melts, as it were, the lungs away in the profuse discharges, which in many cases so suddenly ensue, when the preceding cough was dry and irritative, or, at most, was accompanied by a frothy white-of-egg-like expectoration. Another condition arises, in the rapid decomposition of the nutrient fibrinous lymph into pus, by its contact with membranes whose integrity is insufficient for vital renewal, and which are fast verging of themselves towards disintegration and liquid dissolution. In these cases pus reproduces pus. The nutrient lymph exuded for the renewal of wasting tissue is in itself degenerated, and tending to further decomposition, whilst the organ to be nourished is degraded in its vital capacity; and thus lymph that should have been renewed, and

tissue which should have been reproduced, mingle in the destructive changes that flood life away.

Even in these desperate states, arrest has sometimes taken place in an almost miraculous manner. A sudden change has ensued in the blood—the type of disorganization has been exhausted, and isolation of the degenerated portion commences. The exuded lymph becomes organizable, and a barrier to further destructive changes is established, by the production of a so-termed false membrane.

After the hepatization or consolidation of a certain portion of the lung has taken place, the retraction from the diseased condition may ensue quietly, provided the tubes remain open or become permeable, through which the expectoration can be voided. But certain blood changes must also ensue. Its fibrin, and other plastic components, must be more highly elaborated, that the new tissue shall be remodeled in proportion to the waste of the old. In such cases the restitution is comparatively perfect. In others no such remodeling or restitution ensues. The solidified lung has neither direct supply nor means of exit. The bronchial tubes are closed, although some loosened blood-clots may be expectorated; the air-cells are impermeable, and the decay of the impaired tissue is progressing. An abscess is formed, and its contents may be evacuated by spontaneous softening and rupture, whilst a cavity, more or less extensive, is left. Sometimes, previous to the evacuation, and even softening of the diseased portion, the surrounding parts are relieved from their engorgement, and their air-cells again resume their functions. Organizable material may be thrown out, completely restricting the diseased parts, and rendering the discharge of the contained matter impossible, except through surgical means. If the abscess burst, lymph is exuded, and the cavity becomes lined with a membrane, which may secrete more or less. The patient may recover—not with a lung equal in volume to the natural condition, but with diminished capacity, as evidenced by the partial falling in of the walls of the chest. Sometimes the cavity membrane secretes pus, with its gradual wasteful influence, or the cavity may not be completely lined, whilst the stealthy destruction of tissue keeps on. It may be slower or faster, but with noticeable loss to the sufferer. If perfect recovery take place, it is a mere matter of time, youth, climate, and increasing blood-purity.

In cases like these, we have a beautiful illustration of the *practical* differences between inflammation (which in reality is a disintegrating process, although by some miscalled “healthy,”) and vitalization, which is the true power of repair. Upon the student this fact cannot be too

strongly impressed—that inflammation is a perversion of true nutrition, whilst the highest type of development is in the perfection of vital action.

From the consideration of these views, the definition of what is meant by a strumous or scrofulous constitution can be readily gained; the amount of depravity varying with the state of the vital force existing in the blood, and in the structures themselves.

As a vast number of tissues enter into the composition of the body, they must necessarily depend on the blood for their reproduction. Yet it must be remembered that, although the blood contains the elements of renewal, yet the tissues must possess the vital power for organic selection and transformation. The same is seen in the growth of a plant. The earth contains the inorganic materials and the water, but the growth peculiar to it, and its proper principles, reside in the transforming power pre-existing in the early germ. Thus, two plants may be nourished from the same elements in the same mound, but their power of growth and transformation is self-inherent; one producing a poison baneful to animal life, whilst the other may afford its antidote, and a nourishment. In pathology the like holds good. The error may be in the blood, whereby every organ may be more or less attainted, or it may exist in the tissue itself, the blood being comparatively innocent, whereby growths or changes prejudicial to the well-being of the individual may be evolved.

A minute detail of the relation of the blood to the tissues and the various organic functions would be out of place here. But a cursory exposition may be necessary for the student, if not for the more advanced practitioner, that some of the various functions of assimilation may be comprehended. We will begin with the uses of the salivary secretion.

The saliva is secreted by the parotid, submaxillary, and sublingual glands, in conjunction with the follicles, distributed in and beneath the buccal mucous membrane. These follicles are very minute, and are surrounded by a plexus of capillary vessels. The peculiar substance upon which the salivary fluid depends for its converting properties is called “ptyalin.” It acts as a ferment, and is chiefly furnished by the buccal glands. This organic constituent has a chemical action over the farinaceous elements of the food, converting the starch matters into dextrin, or grape-sugar. Over the nitrogenized portions of the aliment it does not seem to possess any chemical reaction.

The gastric juice is secreted by the follicles of the stomach; its peculiar organic constituent, called “pepsin,” in conjunction with the

proper acid of the stomach, has the property of dissolving the animal or nitrogenized matters. This acid is generally supposed to be the hydrochloric. The gastric juice is not poured out during rest of the stomach. The presence of food, or other exciting substances, are requisite. The acid condition diminishes *pari passu* with the decrease of the contents of the stomach; the secretion becoming alkaline, or neutral, when the organ is empty. A moderate amount of stimulus, as produced by salt, pepper, &c., increases the secretion of the gastric juice; but, mechanical irritation, as induced by improper food, or by its excess, diminishes proportionately the secretion; a ropy, tenacious mucus being poured out instead. Frequently this is not the only evil. Nausea, with gagging or vomiting, is apt to ensue, whilst more or less bile may reflow or be pressed back through the pyloric orifice into the stomach, producing, by its power to arrest fermentative action, a train of evils only known to the rash dyspeptic. Vegetable acids, such as vinegar, lemon-juice, &c., at times have the power of retarding the secretion of gastric juice. The digestion becomes slower and more laborious. They become valuable remedies in those cases where the secretion appears to be too great. Ice, or very cold water, at first renders the gastric mucous membrane pallid, the secretion being retarded or completely arrested, until reaction is established, when a greater amount of gastric juice is secreted. Repetition of cold water may induce complete indigestion.

The quantity of gastric juice to be secreted depends more on the demands of the system than on the amount of food taken. This fact, although mentioned by authors, seems very little comprehended by non-medical persons. The portions of the food remaining unsaturated by the gastric fluid must either be refused by the stomach, or pass, in a crude state, into the duodenum, in an improper condition for further reduction. Duodenal dyspepsia is a consequence, attended with colic, spasm, diarrhœa, or disturbances in more remote parts of the system. This "overloading" is a frequent cause of convulsions, bilious febrile symptoms, &c., in children. Amongst those who masticate slowly and perfectly, this form of dyspepsia is rare; since time is given whereby the appetite is more readily satisfied, and the insalivation is rendered complete, by which the farinaceous substances are more easily converted into sugar, whilst the gastric juice is secreted in proportion to the demand. The stomachs of these "bolters" are subject to organic alterations, difficult of retracement even under a more prudent course.

The demands of the system on the stomach are greatly lessened

from inactivity, and consequent loss of muscular tone, and from over-clothing; yet many persons of this description are habitually heavy eaters, and of course must be sufferers. They forget, or do not know, that a species of digestion has to be performed by every portion of the body. They continue with their inactivity, warm rooms, and over-amount of clothing; whilst the consequent feebleness operates against the actual requirements of the system for renewal. Hence, they become subjects for tumors, abscesses, tubercles, &c., as witnesses of their utter disregard to the necessities of their stomachs. How often do they exclaim, "At one time I could eat any quantity, and now am obliged to watch every mouthful!" Certainly, they not only could, but *did* eat any quantity. Pay-day must come, if the man lives long enough.

After a night's debauch, the thirst, the chip-dry mouth and throat, the rapid pulse, the feverish restlessness and bursting headache, are the mere tell-tales of the dishonored draft on the stomach for its "salivant," now more precious than gold. Any quantity of water is swallowed, but the gorging food remains undigested. The stomach becomes irritated, but will not secrete the evil-dispelling juice, and bile begins to be passed into the stomach, to increase the misery. Children are not the only ones that indicate by acrid secretions, aphthous patches, hives, and other skin eruptions, this over-cramming of the stomach; larger babies have the same.

Lesion or impairment of the functions of the pneumogastric nerves tends to derange the digestive capability of the stomach. The secretion of gastric juice is not only impeded, but the stomach walls are impaired or deranged in their natural movements. Vomiting, inappetency, faintness, palpitation, spasmodic respiration, &c., form some of the attendants on this nervous derangement. In one case lately under my care, the amount of bile ejected was enormous, being accompanied by constant gagging and suffocative sensations. The gastric juice is the proper solvent for the azotized elements of the food, the starchy, oleaginous, and saccharine matters not being chemically acted on by it. The saliva, as before mentioned, presides in a great measure over the starch materials, the produced sugar being readily absorbed by the stomach. The uses of this product appear chiefly to support respiration, and to aid in the production of animal heat, whilst under certain circumstances it probably may be converted into fat. Fat is not a true histogenetic or fibre-making material, any more than other non-nitrogenized bodies. But the fatty matters, although not directly fibre-forming, yet enter largely into the formation of adi-

pose and nervous tissue, and are essential in the acts of assimilation and in the reproduction of the early structures. The fatty materials are converted by the gastric juice into a more minute condition, or are held in suspension by it; whilst the albuminous matters are reduced by the aid of the acid of the stomach into a true solution, and into one uniform state.

The experiments of Bernard on solutions of albumen are highly interesting, and their results may lead to the better practical understanding of some of the forms of that Protean malady—Albuminuria, or Bright's disease. He found that a solution of albumen in very dilute hydrochloric acid, injected into the veins of an animal, made its exit speedily by the route of the kidneys; whilst a solution of albumen in gastric juice, so injected, left no discoverable trace in the urine. I am satisfied that in many of the cases of albuminous urine in pregnant women, and especially in the early stages, the acid of the stomach—now generally admitted to be the hydrochloric—being in excess, acts on the albuminous portions of the food as a ready solvent, and being rapidly absorbed into the vessels, the albumen is excreted by the kidneys, giving rise, like other foreign matters thrown upon other organs, to congestion more or less extensive, and a disposition to those organic changes found to accompany albuminous kidney disease, of pregnant women especially. The lactic acid may also have the same solvent power over albumen. Although the derangements of the pelvic viscera happening with pregnant women—obstructive pressure upon the ureters, &c.—may accompany and aid this condition, yet they do not account for the whole attending phenomena. And sometimes, *in advance* of this albuminous showing of the urine, is puffiness of the face, or other portions of the body, followed by an erysipeloid affection of the skin, and even with indications of serous effusions into the cavities of the chest or cellular tissue of the legs.

Space is not allowed for the further mention of these views; but it would be well to caution certain “prompt” gentlemen of the profession, who hastily advise premature delivery, sacrificing the child, and many times injuring the mother, without fully comprehending the *causes* of the kidney derangement, and its frequent disappearance under properly-directed medical treatment. In further proof of these views, the albuminuria has often been seen to disappear suddenly, and coincidently with a change of the acid secretions of the stomach—in other words, spontaneously.

Not in pregnant women alone may this albuminous condition of the urine happen. It may ensue in the male, and in the unimpregnated fe-

male. In the tuberculous pregnant, it may serve to account for the arrest in the chest changes, independent of any other demand for the albumen of the blood. And *vice versa*, it may point out the cause of those cases in which tuberculosis has been dated from pregnancy, the albuminous excess of the blood producing depositions in the tissue of the lungs, independent of any kidney structural change. It is always prudent for the medical practitioner to remember, that some diseases are *complimental*, whilst others are *compensatory*.

Temperature has also a most important influence over the solvent power of the gastric juice. From 96° to 100° has been found most favorable. Amongst children, whose circulation is languid, where the temperature of the stomach barely is sufficient for digestive purposes, the "process of hardening" by exposure of their limbs, or by too light covering of other parts, not only aids in the reduction of the heat so essential to the stomach, but becomes the parent of scrofulous changes in the constitution, and also of tuberculous degeneration of the lungs.

Although for the most part we associate great bodily waste with pulmonary consumption, still it certainly does not attend in all cases. For we constantly see fatty, albuminous-looking people, whose lungs are greatly damaged, and who die from consumption, with a tolerably fair share of *embonpoint*. But they are weak, cannot undergo muscular exertion, and are terribly averse to fat in any shape in their diet—having their meats well done, and denuded of anything likely to produce it. So it is with those poor white-tissued, plump children, whose parents sacrifice them on the altar of prejudice or fashion. They think their children can stand it, as Mr. Smith's children have been so hardened—not noticing that Mr. Smith's children were fibre-producing, heat-generating little fellows, whose stomachs, perhaps, could afford it, or needed cooling for the degree necessary for healthful digestion.

There are other consumptives, from whom the subtle leech dissects every portion of fat; they can bear fatigue surprisingly; they cough day and night; they eat prodigiously, and bear fat well. Indeed, many seem to almost live on it. They fairly walk into their graves, which have so long been claiming their skeleton bodies. They die, after being housed only a few days, either from hæmorrhage, or because there was not sufficient lung surface left unconsumed, for the absolute atmospheric wants of the system. On examination of these defying cases, although the lungs are found excavated, yet the portions that are left are comparatively sound—the tubes are not occluded by

infiltrations of matter, and the remaining cells are not thickened or changed in their normal structure—there were only not enough of them. I have seen such fight on, and get well; whilst others have fought on to the last, with the hope lingering that the victory would still be on their side.

Consumption, that is, tuberculous disease of the lungs, though in most cases attended with cough and profuse expectoration, is not always so—a person may have *dry* consumption—the cough being a mere irritative hack, or a long wheezing one, with a bronchitic expectoration, if any, like the white of egg. They gradually fail; no particular symptom records the cause; every function seems to decay with even step, whilst the lamp of life burns brightly on one or both cheeks—in some only put out by the heavy dewy sweats, to be relit on the morrow more brightly still. And thus, life “growing sanguine with its lightening load,” and the voice becoming whisper-silent, they sink into that sleep whose dreams are undisturbed, and whose wakening is full of promise.

In my own experience, I have found a low gastric temperature attending those troublesome cases of regurgitation of the food, the particles being scarcely acted on, although they may have lain in the stomach for several hours. The persons so afflicted are apt to complain of having “cold stomachs;” but this condition of regurgitation may also happen when the stomach temperature is too high—the pieces rejected, however, are generally more or less softened. Diarrhœa is more frequent in its occurrence from this state, than regurgitation, owing to the irritation established from the passage of crudities into the duodenum.

The fatty matters, besides their disposition in the formation of the nerve vesicles, have a special destination in the primitive growth of other parts of the organization. They serve to maintain animal heat by combustion within the lungs. Even malignant growths demand fat as one of their elements. A due admixture of oleaginous substances appears to be absolutely necessary, not only for the digestion of the albuminous materials, but also for the growth of the tissues. It is probably owing to the neglect of this law that so small a proportion of true contractile muscular fibre is to be found in the fat, white-tissued-looking persons. The fat they possess is the product of conversion of the albumen, and the *vegetable* oil matters in the cells of the plants consumed. They lack fibrin—the very scaffolding necessary for fibre growth; and when attacked by tuberculous or scrofulous disorders, they melt down, as it were, without the power either of resisting waste, or

of remodeling. Wounds, or any breach of continuity, heal in them with difficulty, and are only forced to do so, under artificial stimulus, constitutional or local, by which the fibrin may be engendered for constructive purposes. This class of persons are subject to consumption; and their cure, if it take place, can only be effected through those means by which the blood shall be rendered less albuminous and more fibrinous, by dietetic regimen and superficial remedial application. With these, albuminuria is not only incurrent, but I have seen it preservative; the kidneys acting as safety-valves in the withdrawal of the excess of albumen. They are also subject to ulcers of greater or less extent and number, that appear by their curdy discharges to run off the same excess of albumen, whilst by their irritation the fibrin is increased. Practically, it is not found beneficial to heal these ulcerations suddenly, as albuminuria may become established, if not present, or be increased if previously existing. The substitution of the animal oils, or cod-liver oil, in these cases, is not only difficult, but at times impossible. Indeed, in most of them, the fault does not lie in the oil matters, although they are imperfect, but abundant; it lies in the deficient elaboration of the plastic elements. We now see that consumption may depend not only on deficiency of the oleaginous materials, but also on the deficiency or depravity of some others; and the remedial selection is only to be made by the careful grouping of the symptoms, and by the analysis of the assimilative relations of the patient. The benefit accruing from the use of cod-liver oil in many wasting disorders, is mainly to be attributed to the importance of fatty matters in the process of assimilation.

The inorganic materials of the blood also serve important uses, in regulating its chemical condition, and in supplying the necessary bases of growth. The potash salts hold a special relation to muscular substance; the phosphates and carbonates of soda maintain the alkalinity of the blood; whilst the chloride of sodium, or common salt, renders important services, not only to the solids of the body, but also to the secretions. In the young growing tissues, in the formation of the skeleton, and the teeth, the phosphate of lime performs a most valuable office. We now see the *rationale* of the employment of the hypophosphites of lime and soda, recommended by Churchill in the treatment of consumption—they not only act as absorbents, but repair or retard the waste of tissue. In the blood, muscles, and hair, iron enters largely.

(TO BE CONTINUED.)

On Climate Fevers and Acclimatization in the Tropics. By G. VAN ARCKEN, M.D. (Communicated in a letter to the Editors.)

BOGOTA, NEW GRENADA, Jan. 26th, 1859.

EDITORS OF THE AMERICAN MEDICAL MONTHLY:

In one of the last numbers of the MONTHLY I have seen a notice of the death of Doctor D. Uhl at Ciudad Bolivar. You will recollect that before my leaving New York for Europe in February last, Dr. Uhl was introduced to me by Dr. Davis, he wishing to get some information about the tropics in general, and Ciudad Bolivar in particular. Having visited the latter place in the summer of 1857, I advised him to change his plan, and visit rather some other place in Venezuela or South America; stating, at the same time, to him, the poor prospects for practice at Ciudad Bolivar, and the extreme unhealthiness of the surrounding country.

Ciudad Bolivar, at present so-named after the liberator of South America, went formerly by the name of *Angostura*, or *the Narrows*. It is situated at the eastern end of the great plains of Venezuela, and is built upon the slope of a slight eminence, close to the Orinoco River, at a place called the Narrows, whence its name. The mouth, or mouths of the Orinoco River, are still about 200 miles below the city; but, as there are hardly any settlements between it and the mouth, it may be said to be situated at the commencement of the Delta of the Orinoco, which occupies a range of country equal to the whole State of Texas.

The diseases reigning in that country are more or less those of all the tropics, especially the borders of great rivers.

In the summer, or dry season, malignant intermittent, or congestive fever, and a peculiar dysentery, prevail; the latter so fatal, that no medical man ever takes charge of a patient who has been for six days or more suffering from it, recovery being in such cases entirely out of question. But the rainy season, or winter, is decidedly worse. As soon as this sets in, all diseases change of a sudden in character, assuming mostly a severe gastro-bilious form. In the natives they become simple bilious fevers, running occasionally into a typhoid form. In the foreigners, the disease sometimes assumes the genuine yellow fever form, especially at Ciudad Bolivar, where the strong trade-winds bring them a daily supply of poisoned atmosphere from the Delta of the Orinoco. But more frequently they suffer from what I call a climate fever, very few indeed being the foreigners who entirely escape it. This fever is the *ne plus ultra* of its kind. It is comparatively

so little known that some physicians deny its existence altogether. This is mostly the case with the natives, who only make an examination on their first visit, and take it for granted that a disease never changes its character—after the fashion of the Chinese, who only point their guns at the commencement of battle, and then keep firing away, never mind how often the enemy changes his position.

This acclimatization fever mostly commences with all the symptoms of a gastro-bilious fever; of course the physician acts accordingly. But on the next day the nature of the fever appears to be entirely changed, the symptoms present being those of a slight intermittent attack. On the third day the fever assumes suddenly a double, sometimes a triple, intermittent type; that is, two or three different paroxysms take place in one day. This alarms the doctor, who gives immediately thirty grains of quinine. But hardly has the fever smelled the quinine—it cannot be the effect, that takes at least four hours—when lo! in the course of an hour the tongue becomes extremely foul, a bitter taste comes up from the stomach, etc.; in fine, the fever declares itself of a true bilious form. Emetics and purges are now resorted to, and in forty-eight hours the patient is free from fever, which this time leaves for good. But now commences the real danger; the patient, who generally has not eaten anything for five days, should now have plenty of strong broth and soup, with wine and water; and to habitual toppers brandy and water should be liberally allowed. For in a great many of these cases the infection of the system has been so violent, the malarious poison has saturated the blood so completely, that it is enabled to make one last, and sometimes successful, effort to get the upperhand, by producing a sudden congestion and infiltration of both lungs, which organs are found after death to be completely hepatized by a sanguinolent semi-fluid; this being the constant and only pathological condition by which we can account for the sudden death in such cases.

As to the preservation of foreigners in tropical climates from infection by fevers, etc., a great deal may be done, which, however, is left undone by the careless habits which people either bring with them, or contract shortly after their arrival. In the first place, everybody going to a hot country should go well provided with a stock of pure flannel under-shirts and woolen socks. In those not accustomed to its use, it will most likely produce that troublesome complaint, lichen tropicus, or prickly heat; but I consider such an event as pure gain, it being evident that nature relieves herself in this way of some morbid matter, which might under other circumstances have given rise to a much more

serious disorder. Under-shirts, drawers, and socks should be changed every day, and separate woolen night-shirts used; it being a most unhealthy and disgusting habit to lay down with under-clothing still saturated with sweat.

On getting up early in the morning, the whole body should be sponged and rubbed, first with pure water, and afterwards with water and *eau de Cologne*. This makes a person feel fresh all day long, and saves the trouble of "*going to take a bath*" in the heat of the day.

The whole body should always be kept scrupulously clean, and the skin in the highest possible state of action.

The next question is that of eatables. It is a common thing with foreigners to lament about "*the flesh-pots of Egypt they left behind.*" On getting out of bed they want some three or four, not cups, but bowls of coffee, a few pounds of beef-steak, and sausages and cheese to match. Now, all this has a most fatal effect. People going to a hot country should adopt, as far as possible, the habits of the natives.

After washing and dressing, I take usually a small cup of chocolate, and then start to see my patients; having frequently twelve to fifteen visits to make, and sometimes dressings to apply, this occupies me till half past nine o'clock, the usual breakfast hour in hot countries.

For breakfast a small quantity of roast mutton or beef-steak, a few soft-boiled eggs, a small cup of strong coffee, and bread and butter, are all a man should take.

At one o'clock some people take a lunch; I prefer fruit, such as oranges, pineapples, watermelons, etc. The dinner hour is four o'clock; a plate of soup, roast beef, with fried potatoes or plantains, fresh fish, sweetmeats and coffee, *à la Française*, constitute it, and after that I never take anything, and, least of all, never eat a supper.

Foreigners are very apt to suffer from profuse perspiration; this is perhaps the best thing that can happen, and should always be encouraged by a plentiful supply of refreshing drinks, such as lemonade, orgeat, etc.

Alcoholic drinks should be scrupulously avoided, or at least used only in very small quantities, because they always produce more or less derangement in the functions of the liver. Let those who are accustomed to stimulants, take some light French wine with water at dinner, and during the day.

Next, the keeping of late hours and venereal excesses are bad enough everywhere, but here still worse. In a country where morals are at so low a standard as in this, young foreigners are very apt to fall into the habit of knocking about in the streets until after midnight,

a kind of amusement which they technically style "having some fun with the girls!" Now, if walking in a hot tropical sun is hurtful to a white man, the tropical night air is still more so, for after dark the miasmatic exhalations have free sway, being no longer neutralized by the rays of the sun. Unless professionally engaged, I make it a principle never to be out after eight o'clock.

Attention should also be paid to the state of the digestive organs; a great deal may be done towards keeping them in good order by attending to the above regulations, and by taking plenty of exercise, especially early in the morning. Still, sometimes the assistance of Mother Physic is necessary. For myself, I know of nothing better than the lately so much abused calomel and jalap, in equal doses. I take five grains of each two or three times daily, with weak broth and toast diet, and repeat the medicine until perfectly liquid and green stools follow; I know then that no fever can touch me for six or eight months to come.

Some practitioners give only salts or castor oil in such cases. Against this I have to say, that to bring away two or three feculent stools is not the object at all; I want to produce a violent excretion of the retained, and frequently vitiated humors; such must take place to be productive of any good.

I have lived now nearly eight years in the tropics, mostly moving about. During this time I have visited and lived at New Orleans, Vera Cruz, Havana, Panama, and Port-au-Prince; last, though not least, I have traveled and lived two years in the Plains of Venezuela, a country unequalled in the world for unhealthiness, even by the redoubted Pontine Marshes; I being the only foreigner who ever traveled there without getting sick. All these countries are the homes of the most malignant fevers and dysenteries; still, I have escaped them anywhere and everywhere, owing to an occasional liberal dose of calomel and jalap.

Hæmatin Crystals, and their Medico-legal Importance. By Drs. L. BUCHNER and S. SIMON, of Darmstadt.

(Translated from *Virchow's Journal*, and prepared for the MONTHLY, by L. Junghanns, M.D.)

In 1853 Teichmann discovered that by the action of acetic acid on dried blood, colored rhombic crystals were obtained, in which the coloring matter of the blood was recognized as the chief constituent

They were called hæmatin crystals. The discovery excited attention, and promised to be of practical utility in medico-legal examinations. All methods hitherto employed in distinguishing dried blood or old spots of blood on cloth, wood, iron, &c., from other similar matters or stains, had been either so inaccurate or so dependent upon the accidental skill of the examiner, as to leave much to be desired. His researches it was thought would supply this want, and present an easy, accurate, and applicable means of recognizing dried blood, or spots, or stains originating in any species of red blood, however old or in whatever objects they may be found.

Teichmann referred to the practical usefulness of his discovery, and Professors Burcke and Virehow both considered it valuable in medical jurisprudence. The same view of its importance induced us to make the following investigations, which, in part confirmatory, and in part supplementary of what has hitherto appeared, will be of especial assistance to physicians who may be called upon to investigate or give an opinion upon questions of this kind.

Description of the Crystals and their Action under Reagents.—They are microscopic, and present in their form, color, manner of grouping, and chemical relations, characteristic peculiarities. Their form is not a rhombic column, as Teichmann says, but a rhombic plate, as can be readily seen in single specimens floating in a liquid, and turning on their axes, and also in crystals, formed when operating upon large quantities. Well-formed crystals show sharp and distinct outlines; those less perfectly prepared take the shape of the so called weaver's spool. Between this and the perfect rhombic form, an intermediate one is perfectly observed, resembling paragraph marks, in which both obtuse angles are rounded, and both acute curved like a bow. Sometimes they are found longer, smaller, and more slender; at others, shorter, thicker, and more approaching a quadrate form, in which latter they show an inclination to assume less distinct outlines.

The color varies from a dirty-yellow, through reddish-brown to a deep black. Their general color, however, is a dirty reddish-brown, more or less dark, according to the color of the solution from which they are separated. However, some appear darker and less transparent from being placed more on their edges, and in such cases present the appearance only of a black but always rhombic line. Those described by Teichmann as fine black sticks may have been nothing but such plates standing on their edges. Their size varies from the nature of their preparation—the rapidity of evaporation or other circumstances. Under a power of 300, they sometimes appear so small as hardly

to be perceptible, with millions of them in densely-crowded groups occupying the field, and then again so large and at such distance from each other that only twelve or twenty enter the field. In general, every preparation, even though incomplete, will contain a large number; and when not numerous, the conclusion of their presence should be drawn only with precaution.

Like other microscopical crystals, they tend to lie across each other in the form of the roman X; frequently, also, in the form of a star. In preparations made from small quantities of material, both these forms will be wholly wanting. Teichmann says that he saw these crystals, not only as rhombs proper, but as needles, sticks, and granules, resembling those of black pigment; we also have seen such forms, but cannot attribute to their presence any medico-legal importance. From the facility with which the characteristic forms of these crystals may be obtained, those preparations alone which exhibit well-developed forms should be accepted. There will be the greater necessity for this exclusion also, from the fact that other liquids, saturated with coloring matters, as, for instance, the bile, present under similar treatment dark corroded granules of angular size and form, and which, so far as our investigations go, agree in their chemical reactions with those of crystals of hæmatin.

The following results of the chemical reactions of these crystals, obtained by operating with large quantities of the material, and which when obtained were placed in small test tubes, boiled, and placed under the microscope, agree in the main with those formerly indicated by Teichmann.

These crystals are quite insoluble in water, and also in alcohol, acetic acid, phosphoric acid, and hydrochloric acid, even though these be dilute or concentrated, hot or cold, or left to act for a longer or shorter time. They dissolve with difficulty in ammonia, dilute sulphuric acid, and officinal nitric acid. They are readily soluble in solutions of caustic potash, producing a dark-green color; likewise, but not so readily, in English sulphuric acid, and leave at the bottom of the tube dark viscid masses of pigment, with amorphous flaky masses floating through the liquid. In forming nitric acid they dissolve instantly, turning the liquid a brownish-red color. Their behavior under action of chlorine water may be mentioned as peculiar. When submitted to it for several days, they retained their characteristic forms, but from their many cracks and furrows, seemed as if corroded. At the same time they lost their color and became transparent.

Preparation.—The method of preparing or obtaining crystals of

hæmatin, given by Teichmann, is as follows: The blood is dried and then treated by heating it with concentrated acetic acid. This method is good, but too restricted. According to our experience, no previous preparation of the blood is required, nor does the acetic acid require to be heated. A drop—a portion of coagulum—or a strip of any cloth, stained by blood, having concentrated acetic acid poured over it, and left for a few hours or days, will always furnish under the microscope some, however imperfectly developed, crystals of hæmatin. For their preparation nothing is required but the smallest quantity of blood, or liquid colored with blood, and a surplus of concentrated acetic acid. (Dilute acetic acid is of little value; oxalic, tartaric, or citric acid, not any at all.)

We obtained the crystals with equal facility from blood recently drawn, and that preserved for months, and putrefied and discolored; from spots of blood on wood, garments, iron, &c., days, weeks, or months old; from a strip of a butcher's pants eight years old, and which had not been worn for a year and a half; from dried ox-blood, two and three years old; from blood of men, birds, mammalia, fish, amphibious animals; from arterial, venous, and menstrual blood; from blood beaten and not beaten; from blood coagulated, fresh, dried, evaporated to a syrupy consistence, boiled, diluted with water, or in artificial ways deprived of its serum or coloring matter; neither did the accidental presence of impurities in the blood from other animal matters in any way prevent the development of the crystals.

All the manipulation needed for their preparation is simply to add to a drop of liquid blood, or liquid colored by blood, a small surplus of concentrated acetic acid, and to evaporate the whole slowly in a watch-glass upon a sand or water bath, or even a spirit-lamp, at an average temperature of 40° – 50° C.

The blood is wholly or partly dissolved by this acetic acid, which it thereby reddens, and when dried forms on the bottom of the glass a thin, brown-red, transparent crust, in which the crystals lie imbedded, and recognizable by placing the glass, without further treatment, under the microscope. The common microscopic object-glasses can be used for the same purpose, but are not recommended, from the disposition which acetic acid has to spread and overrun the sides, &c. If the quantity of coloring matter be small, the crystals will be found only in the small colored edges of the precipitate.

To obtain a clear and transparent preparation, the coagula and flakes formed by the action of the acetic acid may be removed by any mechanical means before evaporating. Still better preparations may

be had by a slightly complicated process, as follows: by mixing the blood material with acetic acid in a test-tube, and boiling it a few minutes over a spirit-lamp. This dissolves all the coagula and clots, and gives an equal red-colored solution, a few drops of which placed on the watch-glass is evaporated, as above described.

Special attention was given to the medico-legal aspects of the subject. We examined old and new spots of blood on rags, garments, iron, wood, &c., and obtained from them most satisfactory results, which placed beyond doubt the usefulness of our method.

In regard to the question raised by Brucke and Virchow, that the addition of chloride of sodium is necessary for the production of crystals of hæmatin, our own examinations have taught us that such addition is quite unnecessary; unless, as Teichmann's most recent publication on this subject teaches, the blood be artificially deprived of its salts, in which case it is not in a condition to crystallize, and only regains this power by the addition of a granule of chloride of sodium. His experiments on this point we have found to be correct.

It was desirable, therefore, that this fact should receive its medico-legal consideration. Accordingly, we treated rags spotted with blood, in the same manner as Teichmann did the sediments of blood, and washing them repeatedly soon brought them to a condition in which their appearance was the same as the well-washed coagula of blood, and found that crystals were not produced, unless, before boiling, a granule of chloride of sodium or drop of a solution of any haloid salt was added. The question, therefore, if spots of blood, &c., might not through washing or other artificial means, by exposure to the action of rain, moisture of the soil, or even damp air, be so deprived of salts as to fail to exhibit crystals of hæmatin without the addition of chloride of sodium, is to be answered in the affirmative, and that in certain cases, as above described, such addition is indispensably necessary.

Possible Mistakes and Errors.—Professor Virchow remarks, that by treating a solution of indigo with concentrated acetic acid, he once obtained crystals resembling crystals of hæmatin, but distinguished by their blue color. This led us to examine carefully all red, brown-red, and yellow coloring substances, which are used for coloring garments, or which could possibly produce spots similar to blood spots. This examination comprised the following substances: murexide, alkanaroot, gummi laccæ, kermes grana, lignum santalinum rubrum, cochineal, terra orleana, radix rubiæ, tincturæ lignum Pernambuci,

sanguis draconis, tinct. cardomi, tinct. rhei, liquor ferri, iron-rust, red ink, and cherry-juice.

They were treated the same as if examining for crystals of hæmatin, and of each two preparations were made, one with and one without the addition of chloride of sodium.

Of these, alkana-root, grana kermes, cochineal, terra orleana, lig. Pernamb., tinct. card., tinct. rhei, liq. ferri, iron-rust and cherry-juice, furnished not the slightest reason for being mistaken. In the preparations treated with chloride of sodium, numerous and differently formed crystals were present, but which, by their perfect loss of color, could alone be attributed to the salts added.

In the preparations from lig. santal. rub., rad. rub. tinct., red ink, gum. lac., sanguis draconis, (from the first three in all, from the last two only in those preparations in which salt had been added), single crystals were observed, which, by those inexperienced, might possibly be mistaken, but which, by the experienced, were plainly to be distinguished from crystals of hæmatin by their irregular form, sometimes needle-shaped and sometimes square, by their indistinct wavy outline, and especially by their loss of color. If individual colored specimens are observed among them, the color is plainly recognized to be only accidental.

Red ink prepared with alum and chloride of zinc, showed plain rhombic forms, but they were also colorless. But in any of these cases where doubts as to color arise, they may be dissipated by the use of chemical agents, or even simply by a little water, in which these crystals are readily and quickly dissolved.

Murexide offers more difficulty, for it forms, with and without acetic acid, crystals oftentimes much resembling crystals of hæmatin. The color of the evaporated liquid and its relations to reagents, however, will prevent mistake even here.

A solution of murexide, evaporated on a watch-glass with acetic acid, is light brick red, while that of blood is dirty brown red in color. Water dissolves the murexide thus evaporated with a purple red color, hydrochloric acid without color, and potash with a blue color; while crystals of hæmatin are not soluble in the first two, and in the last with a deep green color.

A mixture of murexide and blood evaporated with acetic acid in a watch-glass shows the residue less light red than with murexide alone, and lighter than with blood. By washing with water and hydrochloric acid the murexide is removed, and the crystals of hæmatin remain unchanged in the dirty brown-red residue.

In examinations of spots of blood, therefore, on red-colored substances, the possibility of mistaking crystals of murexide for crystals of hæmatin must not be forgotten.

Process in making Medico-legal Examinations.—In all cases in which the medical officer or physician is required to give his opinion or judgment, whether blood be present in dubious spots, presented to him on any object, garments, linen, wood, iron, or in liquids possibly stained with blood, in which a bloody knife, or clothes, &c., had been washed, the examination for crystals of hæmatin will enable him to arrive at a quick and accurate conclusion.

Spots on clothes, garments, wood, &c., are to be cut out or separated as much as possible from harder substances, by shaving or scratching, and it will be no disadvantage if parts of such substances are involved in the examination.

Spots on iron or steel are best managed by heating the part, when, if from blood, they will be exfoliated. Solutions intended to be examined for blood should be evaporated previously to treatment with acetic acid, lest the acid be rendered too dilute by an immediate mixture. If the objects to be examined are in isolated strips, a different method may be pursued. Fresh spots of blood, that is, those not older than a week or a month, and which have not been during that time specially exposed to destructive or discoloring external influences, give up easily on maceration in water a part of their coloring matter, and can be consequently examined in that manner. Older and partly dissolved spots of blood, however, are less acted on by water the older they are, and are therefore better macerated or boiled in acetic acid until the acid becomes plainly red or reddish. This latter proceeding is to be recommended as the proper normal one to be followed. Its only disadvantage is, that through its energetic action the acid extracts, besides the coloring principle of the blood, the other coloring matter contained in the substance examined, and thus sometimes gives a dark, untransparent, and consequently useless preparation. In such cases resort may be had to the more lengthy process of maceration. Boiling in acetic acid has the additional advantage that none of the material is lost or unnecessarily washed away, and that a quantity of the bloody substance, scarcely larger than a pin's head, is sufficient to give an indubitable result.

To the question, under what circumstances should chloride of sodium be added, it must be answered, that this is necessary whenever we have reason to suppose that the spots of blood, through exposure to external influences or otherwise, have been wholly or in part

deprived of their salts. In such cases as small a granule as possible should be selected and added before boiling with the acid. Subsequent addition is useless.

Value of the New Method of Examining for Blood.—It cannot be denied that it far excels in accuracy and usefulness any method hitherto used, and admits of giving correct opinions in cases in which it was formerly impossible.

On the other hand, it shares with those methods the great disadvantage of not being able to distinguish the blood of men and mammalia from each other, and even falls behind some in not distinguishing even the blood of birds, fishes, and amphibious animals, from that of mammalia.

It states nothing but the presence of a species of red blood, but that with such accuracy, and after the lapse of so long a time, that no other method of examination in this respect equals it. Every medical man knows the great advantage such a certain means of knowledge at times affords, and how it alone often suffices to point out the true path or give a sufficient reason for the commencement of a legal proceeding. If it were once known that a questionable spot originates from blood, a great point is gained, and a judgment may then be frequently corrected and perfected by further microscopical examination.

On the other hand, it may be asked, Of what value are negative results in examinations for crystals of hæmatin? From the known facility with which these crystals can be obtained, such negative results permit the conclusion that probably such stains or spots are not from blood, and nothing more; for the possibility that a spot may be after all a spot of blood, cannot be denied. It is known that spots of blood on garments, clothes, &c., become more discolored the older they are, and the more lightly and thinly they have been stained. But where there is no coloring matter left, no crystals of hæmatin are developed, and hence the negative result will have the greater force of proof the redder or more reddish colored is the spot examined. If the red color be produced by blood, we obtain crystals by proper treatment in every experiment.

An interesting Case of Typhoid Fever, with Hæmorrhage from the Lungs, Stomach, Bowels, and Kidneys. By CLINTON WAGNER, M.D., of the Baltimore Infirmary.

Randall Williams, negro, aged 26 years, entered the Baltimore Infirmary on March 4th, 1859; sick one week.

At the time of his entrance, he presented the following well-marked symptoms of typhoid fever: Pain in the right iliac region; tenderness upon pressure, and tympanitic distention of the abdomen; gurgling and diarrhœa. He also had cough; and, upon applying the ear to the chest, mucous rhonchi was heard in both lungs. His pulse was 84 per minute, and respiration 22.

He was ordered the following, as a stimulant expectorant:

R.—Syr. Scillæ,

Syr. Senegæ, ää, ʒi.

S. Tea-spoon full every 4 hours.

He was also ordered the following, as a nervous stimulant:

R.—Pulv. Opii, gr. $\frac{1}{4}$.

Gum. Asafœtidæ, pulv., grs. ii.

M. Ft. pill. S. Every 3 hours.

He also received wine and beef-tea freely.

March 8th.—During the past four days, but little change in his condition has been observed; to-day he was thought to be worse; prostration greater, diarrhœa ceased, pulse 82, respiration 20 per. min.; he was ordered the following:

R.—Tinct. Ferri Muriat., gtt. xx.

S. Every three hours.

The pills were discontinued; wine, beef-tea, and other nutritious articles of diet were freely administered.

March 10th.—During the past two days he has been failing rapidly; to-day pulse 80, respiration 18 per. min.; had copious hæmorrhage from lungs and stomach; upon making an examination, it was discovered that there was dullness upon percussion over both lungs, but more extensive upon the left side; upon applying the ear, crepitant rales were heard in the upper portion of both lungs, evidencing effusion; to-day he was ordered:

R.—Ol. Terebinthin. gtt. x.

S. Every three hours, alternating with iron.

On the 11th, he appears to be much weaker; pulse 84, and dicrotic; respiration 24; had a large hæmorrhage from bowels; his stools contained very little fecal matter, but consisted almost entirely of blood.

On the 12th.—To-day no better; pulse 112, and dicrotic; in addition to the hæmorrhage from his lungs, stomach, and bowels, there was a large amount of blood passed from his kidneys.

March 13th.—To-day he is much worse; pulse 152, and respiration 40; at times he is very delirious; the hæmorrhage from the several organs still continuing; fearing that the turpentine might possibly

assist in the hæmorrhage from the kidneys, it was discontinued, and he was ordered:

R.—Ammon. Carb., grs. v.

S. Every hour.

A large sinapism was applied over the chest. Notwithstanding the powerful stimulants which were administered, the prostration increased, the hæmorrhage could not be arrested, and at half past five o'clock, p. m., he died, in a state of asphyxia.

A post-mortem examination held six hours afterwards, revealed the following changes: Congestion of the lungs, an ecchymosed condition of the stomach, a fatty degeneration of the liver, and alteration of a few of Peyer's Patches.

The Relative Frequency of the Various Presentations of the Fœtus. By
WILLIAM C. ROGERS, M.D.

MESSRS. EDITORS—Having been engaged for a number of months past in collecting Midwifery Statistics for a special purpose, I send you one of the results of my labors, in the following Table of the Relative Frequency of the Various Presentations of the Fœtus:

Whole number of presentations	88,342
Head, (including "face to pubis," &c.)	85,210
Breech	1,754
Feet and knees	445
Funis, (the accompanying presentation not given)	219
Arm	83
" and head	38
" " and funis	9
Head and funis	57
Placenta	25
Face	299
Shoulder	69
Transverse	120
Sacrum	1
Back	6
Belly	6
Forehead	1

I have gathered these figures from the standard and periodical literature of the profession, and from my professional friends and correspondents. I regret that I did not note the number of twin and triplet cases, and other facts worthy of notice.

GREEN ISLAND, Albany Co., N. Y., March 17, 1859.

Anti-blennorrhagic Treatment of Baby.

[From the French, for the MONTHLY.]

Subnitrate of bismuth, associated with balsam of copaiva and cubebs, neutralizes the irritant effects which these medicines are accustomed to produce upon the whole digestive apparatus, and which makes their employment so difficult. The following formula is employed:

Copaibæ,

Pulv. Cubebæ,

Bismuthi Subnitrat., ää, grs. xxx.

Tinct. Ol. Menthæ. q. s. to flavor.

The mass should be thoroughly mixed. From 8 to 16 grammes are to be taken daily in unleavened bread. Thus prepared, this preparation is endured by the most delicate stomachs,—producing no eructations, no heat in the epigastic region, and no diarrhœa; so that the action of the medicines is concentrated on the urinary passages, and the desired results are obtained, more quickly and with less fatigue, by the patient.

At Saint Lazare, the women take this preparation without any repugnance, and with but rare exceptions it is always tolerated, even when administered for a long time. When copaiva and cubebs are given as capsules, it is advisable to give at the same time the subnitrate of bismuth, either mechanically suspended in water, or in the form of pills, but always in a large dose.

L. H. S.

The Fumigatories of Boutigny.

[From the French, for the MONTHLY.]

The formula for the preparation of fumigatory powder is as follows:

Bisulphate of Potassa, 1 Eq. (55.69)

Nitrate of Potassa, 1 Eq. (44.31)

Peroxide of Manganese, q. s. to blacken the mixture.

The articles are pulverized *separately*, and then mixed carefully. When fumigation is required, a shovel or some similar article is heated to low red heat at the fire, and a few grammes of the powder are thrown upon it; and speedily abundant vapors of nitric, hyponitric acid, &c., will be set free. This powder of Boutigny's, on account of its color and taste, cannot be mistaken for any of those substances which serve as food for man; its innocuousness allows of its introduction in all dwellings, and it is believed to be serviceable whenever it is necessary to have resort to nitric fumigations.

After the fumigation, Boutigny burns a slip of paper, which evolves a very agreeable odor. This paper is prepared as follows: One part of nitrate of potassa and two of sugar are dissolved in six parts of water,—paper which has not been sized is then plunged in this solution and dried.

Determination of Sulphydric and Cyanhydric Acids in Tobacco-Smoke.

By VOGEL, Jun'r, and REISCHÆUER.

When tobacco-smoke is passed through an alcoholic solution of neutral acetate of lead, the abducting tube soon becomes very perceptibly blackened, and the white deposit of carbonate of lead, which is formed in the solution, also takes on a black color, which increases by degrees in intensity as the quantity of the smoke becomes more considerable. This black coloration is evidently due to the sulphide of lead. In order to separate this sulphide, it is only necessary to make the solution in which it is formed acid. It is then collected with care, washed with alcohol, and weighed. Its weight gives us the quantity of sulphydric acid that the smoke of the tobacco contains, on which we are operating. Vogel and Reischæuer obtained the following results:

3.4 gr. of Turkey Tobacco	gave	PbS=0.007
3.7 “ “ “ “	“	=0.0075
3.0 “ German Cigars	“ “	=0.009.

Thus not only is the presence of sulphydric acid gas in tobacco-smoke incontestable, but the proportion is very appreciable, since it constitutes about $\frac{1}{500}$ of the weight of the tobacco experimented upon. The presence of this gas may also be detected by simply blowing the smoke on a paper moistened with solution of acetate of lead; there will be immediately produced a brown color.

The delicate reaction of the nitro-prussiate of soda may also be employed. If the smoke is passed through a solution of this salt, a little ammonia having been added to the solution, there is immediately developed a reddish violet color, which characterizes the reaction described by Playfair.

The sulphydric acid gas in tobacco must proceed from the action of carbon and hydrogen, as reducing agents, upon some sulphates, which tobacco always contains. This circumstance shows that, in the incineration of organic materials, there is always destroyed a small quantity of sulphates, which these contain in their normal state, and

that the estimation of the SO_3 , from the ash, can never be considered as exact and absolute. These authors allege that of 100 parts of sulphuric acid existing in tobacco, 12.63 parts are set free in the smoke as sulphydric acid gas.

Vogel and Reischæuer have failed to find a cyanide, but they have been able to detect the presence of cyanogen itself, and of cyanhydric acid. After having passed the tobacco-smoke through a concentrated solution of caustic potassa, they diluted it with water and then filtered it. To the filtrate was added a mixture of a proto and a sesqui salt of iron, and it was then heated. Carbonic acid was discharged in abundance, and there was formed, at the same time, a precipitate of Prussian blue mixed with hydrated sesquioxide of iron. By treating this precipitate with chlorhydric acid, there was obtained pure Prussian blue.

To make a quantitative determination, the authors had recourse to the action of heat, which very perfectly accomplished the separation. The precipitate is collected on a filter, washed several times with warm water and alcohol, and then when dry, is found with its beautiful characteristic blue color. Two cigars, weighing together gr. 10.6, furnished gr. 0.018 of Prussian blue; and two cigars, of another brand, weighing together gr. 8.5, furnished gr. 0.010 of Prussian blue. The proportion of this salt is comprised between $\frac{1}{600}$ and $\frac{1}{800}$ of the weight of the cigars; and as Prussian blue contains 54 parts in 100 of cyanogen, we see that the quantity of this gas in tobacco-smoke does not exceed a thousandth of the weight of the cigars experimented upon.

Among the specimens examined for the detection of cyanhydric acid, only one was found which did not furnish a trace of Prussian blue,—and this tobacco was very old. All the other specimens furnished notable proportions.—*Dingler's Polytechnic Jour.* L. H. S.

PROCEEDINGS OF SOCIETIES.

New York Pathological Society. Regular Meeting, Dec. 22d, 1858.

Prof. E. R. PEASLEE, President.

[Reported for the MONTHLY, by E. LEE JONES, M.D., Secretary.]

Cancerous Disease of the Bladder and Sacculated Kidney.—DR. GEO. F. SHRADY presented a specimen of sacculated kidney for Dr. Bradford L. B. Baylies, of Astoria, with the following history: Patient,

from whom the specimens were removed, was a man, 55 years of age, who up to fourteen years previous enjoyed good health, he being of a robust constitution. At the time alluded to he was seized with a pretty severe attack of acute nephritis, which was alleviated by the usual remedies, though ever after he complained of more or less lumbago.

With the exception of these lumbar pains everything went on well enough until five years ago, when he noticed that a swelling of considerable size had formed on the right iliac region, attended with heat and a sense of fullness. About this time, also, he had copious hæmaturia.

Three months ago the irritability of the bladder was so great that he was unable to retain his water more than an hour at a time. The urine most of the time contained pus and mucus, with an occasional discharge of blood.

Dr. Baylies first saw the patient five weeks previous to his death. He discovered a soft, yielding, diffuse swelling in the right iliac region, and a tumor in the hypogastric region, which felt very much like the bladder in a distended state, although the bladder had been emptied previously by a catheter. Pressure over this region caused a slight sense of uneasiness, with pain at the end of the glans penis. Subsequent to this the patient complained of this pain in the glans penis quite frequently.

Towards the latter end of his life he began to lose flesh pretty rapidly. He suffered from complete retention of urine but once, about a week before his death, which seemed to be owing solely to the clogging up of the urethra with inspissated mucus, which was abundantly deposited from time to time. Continuing gradually to sink, he finally died delirious.

The post-mortem examination was made eighteen hours after death. The head was not examined. The lungs were healthy, with the exception of the presence of obsolete tubercles in the apices of each. The pericardium was unusually fatty. Heart healthy. Both of the ureters were distended to the size of the aorta, and much thickened, with evidences of inflammation of internal lining, most marked near the pelvis of each kidney. The left kidney was enlarged. The right kidney was found in a post-peritoneal abscess, which extended from the hypochondrium to the right iliac fossa of that side. The contents of this sac was found to be a muco-purulent fluid, mixed with urine. This abscess contained a pint, and communicated with the interior of the kidney by means of a small opening in the pelvis, which

was capable of admitting a crow-quill. The kidney itself was three or four times its natural size; the pelvis much distended, and capable of holding a goose-egg. The infundibula and calices were each dilated sufficiently to hold a pigeon's egg.

The bladder was found to be the seat of cancerous degeneration, as proved by the microscope, all over its posterior and lateral portions. The orifices of the ureters seemed to partake in the diseased action. The wall of the bladder in this situation was thickened to the extent of half an inch. The internal surface of the diseased mass was covered over with nodules about the size of a split pea. The rest of the bladder was healthy.

Gun-shot Wound.—DR. L. A. SAYRE presented a portion of the spinal column, showing the effect of a gun-shot wound of the cervical region. Wm. Scott, native of Liverpool, a laborer, aged 23 years, was admitted to the 1st surgical division at Bellevue Hospital, under charge of Dr. L. A. Sayre, Visiting Surgeon. On admission, June 13th, (Monday, 8½ A. M.,) the patient was found prostrated in an extreme degree—pulse 48, slow and irregular. He was sensible, and complained of pain in the back of the neck, and inability to move either hand or foot. His surface was natural; paralysis of both sensation and motion complete, from the toes up to the lower boundary of the cervical region, both anteriorly and posteriorly. Had a contused wound over the left eye one and a half inches long, extending upward and inward. Posteriorly in the cervical region, on the mesial line, about opposite the sixth cervical vertebra, was to be seen the opening made by an ordinary bullet; which, on passing in the probe, appeared to extend directly from behind forward. The probe, some distance into the wound, impinged upon bone, but it was uncertain as regards touching the ball. There had been no amount of hæmorrhage from the external wound. The patient rallied somewhat, and the respiration, which from admission had been entirely abdominal—15, and regular—remained unchanged; while it was found that the sense of feeling had increased, and on the mesial line of the chest extended to the tip of the ensiform cartilage; being normal as low down as a line opposite the mammæ, below which point to the tip of the ensiform cartilage, the patient first feels. The sensibility of the scalp and integuments of the face and neck were preternatural; and the patient was intolerant of the slightest pressure in this region, and wished the clothes placed over his eyes, which the light pained. As the cause of all this trouble the patient stated that he had been shot by a policeman, about 3½ A. M., when he immediately lost all sensation of motion and feeling, and

remembers only being brought to the hospital. Before his arrival, however, he had recovered all his special senses, and was conscious.

5 P. M.—Patient remains much the same as on admission. Has taken food and drink during the day. Priapism is marked, as it was from the first. Urine has to be drawn off.

Tuesday, 9 A. M.—Patient much the same. Drew off a quantity of bloody urine.

10.10 P. M.—Shows some symptoms of delirium; pulse full, strong, 90; tongue dry, and dryness increasing.

Wednesday, 9½ A. M.—Heat of body markedly increasing; pulse 110, and not so dry as has been; paralysis the same; bed-sores forming over the sacrum. Patient seems to be failing; drew off bloody urine.

Thursday, 9½ A. M.—Patient sinking; pulse 90, feeble and small; respiration 36, difficult and jerking; surface less heated; abdomen intensely tympanitic. Gave Labarraque's injection, which was not retained. Drew from bladder a very large quantity of really pure blood; bowels have moved spontaneously three times during the night; patient's whole condition indicating speedy death; unable to speak or swallow; continues to sink, and dies at 11.30 A. M., seventy-six hours after his admission.

Post-mortem Examination.—Friday morning, 9 o'clock, 21½ hours after death.

Cadaveric rigidity well marked; body well nourished; weather warm.

Examination of injury.—The ball passed through the soft parts between the laminae of the fifth and sixth cervical vertebrae, exactly in the median line, breaking off the spinous process of the sixth, and encroaching upon the spinal process of the fifth cervical vertebrae; passed directly through the spinal cord, exactly in the median line; passing nearly through the body of the fifth cervical vertebrae, a little to the median line, and lodging just beneath the compact portion of the bone, which forms the anterior boundary of the vertebrae, breaking this portion of the vertebrae in such a manner that the ball could be seen beneath it.

Chest—left lung perfectly healthy; right, the same, very slightly adherent from old pleurisy; tissues otherwise healthy; heart healthy.

Abdomen—liver and spleen normal; kidneys congested, but tissues healthy. Bladder—extravasation of blood into the mucous membrane; everywhere excessively congested.

Stomach—mucous membrane marked slightly with ecchymotic spots. Intestines somewhat adherent from old peritonitis. Otherwise, both large and small, healthy.

Head.—On removing the calvaria, the vessels of the dura mater were found greatly congested. On removing the dura mater, marked evidences of recent inflammation were discovered. lymph in considerable quantities was found over both hemispheres, as well as at the base. The cut surface of the medulla oblongata showed evidences of inflammation. The lateral ventricles were considerably distended, and filled with a bloody serum. The whole brain was extra-vascular, and presented evidences of acute inflammation.

Necrosis of Tibia and Femur.—DR. SAYRE next presented two specimens of necrosis—one removed from the tibia of a healthy lad, which was the result of an injury six weeks previous. This exfoliation occupied nearly two-thirds of the whole extent of the tibia. The other specimen was about four inches in length, and was removed from the lower portion of the shaft of the femur, just above the knee-joint. This latter was eleven years in exfoliating. He thought that the specimens were interesting in reference to the extent of the disease in each, and the length of time required for the exfoliation.

In answer to a question from Dr. Harris in relation to the cause of bloody urine in the first specimen, Dr. Detmold stated that in all probability it was owing to the same condition of things that gave rise to the redness of the surface, a paralysis of the capillaries; that it was, in all probability, an exudation of the coloring matter; he was of the impression that no blood corpuscles were found in the fluid.

DR. PEASLEE remarked, that Dr. Brown-Sequard had made some experiments which had a bearing on this interesting case. He should say that the blood in the urine was due to the same cause as the general efflorescence on the skin, viz., to a congestion of the capillaries, generally resulting from the injury of the spinal cord. Dr. B.-S. had shown that a section of $\frac{1}{2}$ of the lumbar cord produces congestion and elevates the temperature in the posterior extremity of that side, though the section of the white substance above does not. Here the gray matter of both halves was probably divided.

If there were blood corpuscles in the urine, there had, of course, been a rupture of the minute vessels of the kidney or bladder, or both, from their over-distended state. The efflorescence of the skin did not, however, extend over the upper part of the sternum, chest, and neck, since these parts are supplied by branches of the anterior cervical plexus, which rise from the cord above the seat of injury.

The hyperæsthesia of the whole surface supplied by nerves rising from the cord above the seat of injury, is not so easily explained. Dr. B.-S. found that the section of the entire white matter alone of

the cord does not destroy the sensibility of the parts below the seat of the section, thus showing that it is the gray matter of the cord which transmits sensory impressions to the brain. As the whole of the gray matter was here divided in the neck, all sensibility below was destroyed. Dr. P. could suggest no better explanation of the increased sensibility in the parts above the lesion of the cord, than that the irritation of the wound in the gray matter was transmitted to the brain; and thus, as it implicated the whole thickness of the gray matter of the cord, was referred to the sentient extremities of all the nerves, originating from the remaining portion of the centre, in accordance with a well-known law. This hyperæsthesia, however, as well as the efflorescence, might not always result from a similar injury; for Dr. B.-S. shows that the temperature is sometimes elevated and sometimes diminished, by alterations of the nervous system, in man and animals. But when the blood-vessels are dilated, the temperature is elevated; and when they are contracted, it is depressed.

DR. DETMOLD, in relation to the specimens of necrosis, thought that there was nothing remarkable in the extent of the disease and the time of separation, as compared with each other, from the fact that one was the result of an accident in a young subject, and the other was owing to constitutional disease in an adult. In the tibia the necrotic bone was nearer the surface; while in the femur, it was buried deep under the muscles.

DR. MINER asked, How much of sound bone was left after the separation of the sequestrum? The question was to him a practical one. He had a case of very extensive necrosis, the result of a compound comminuted fracture of the tibia, in which union had not taken place. The extent of dead bone was so great, that he thought he might be obliged to amputate.

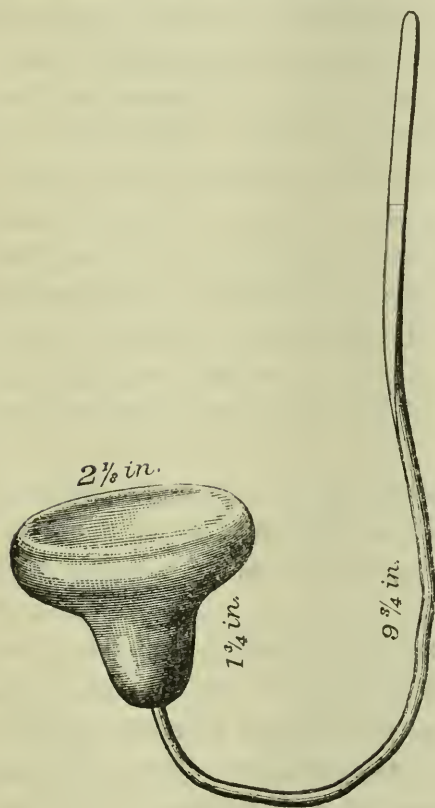
DR. SAYRE stated that there was left in his case but a very small portion of bony tissue, which was evidently of new formation. That portion of the original bone which was left was covered with granulations.

DR. DETMOLD thought that there was no need of interfering in these cases as long as life was not endangered by hectic. The great object was, *not* to destroy the periosteum; as soon as this periosteum separated itself, it was proper to remove the dead portions. He did not think anything was gained by being too much in a hurry.

DR. PEASLEE recollected a case that forcibly impressed him with the fact, that nothing was to be gained by being in a hurry. It occurred in a boy, fourteen years of age, who had extensive necrosis of

one femur, which, in the course of time, complicated itself with fracture through the diseased portion. This having occurred, Dr. P. was sent for to amputate; he, however, concluded that it was best to wait. Moderate extension was kept up by means of a suitable apparatus; new bone formed in place of the dead material, which was in due time separated. He saw the case a year after, and the patient was able to get about comfortably with three-quarters of an inch shortening.

Large Foreign Substance Removed from the Uterus.—DR. SAYRE next presented a *wooden pessary*, which was delivered from the uterus a short time before. Four years ago the woman was delivered of twins; the first was by nature; the second, instrumental. After this she suffered from falling of the womb, for which she applied a circular pessary, which she wore up to last spring, when it was omitted. Six weeks ago she was troubled again with prolapsus. Two weeks ago last Monday, the instrument presented was introduced, which gave rise to a good deal of pain. The pain growing more and more severe, she called a physician a few days since, who found that the instrument had passed into the uterus itself. He made use of a considerable amount of force to remove it, but did not succeed; she was then sent to Bellevue Hospital.



After devising various means for its removal, the doctor, following out the idea suggested by its gradual introduction, thought that its gradual extraction was the safest and best plan. Accordingly, she was secured in bed, and an india rubber strap, fastened one end to a curved rod which was attached to the pessary, and the other to the foot of the bed. By gradual traction, in this way, in the course of $7\frac{1}{2}$ hours, she was delivered. The patient was 42 years of age.

[This pessary was of box-wood, cup-shaped on its upper surface, two and one-eighth inches in diameter, and formed like a convolvulus, one inch and three-quarters deep, terminating in a cone, to which was attached an iron stem

nine and three-quarter inches in length, and curved so as to press upon the abdomen.]

He stated that it was the largest foreign body he had ever heard of in that situation.

In answer to a question from Dr. Miner, he supposed that the os was patulous to allow the passage of such a body.

DR. DETMOLD thought that the os being patulous, the sharp edge of the pessary pressed so long and steadily against it, in consequence of the arrangement of the steel rod attached, that it finally slipped in.

DR. SAYRE asked what was the largest body found in the uterus?

DR. DETMOLD stated that he had seen a large body, but it was merely a sponge. It seemed to have been inserted for the purpose of preventing pregnancy. He stated that there was a case recorded by Dr. Stone, wherein a patient with hæmorrhoids, in order to relieve the pain in the parts, sat upon a tin drinking-cup, as large in circumference as a good-sized tumbler, and the whole entered the rectum.

DR. SAYRE stated that he could, in many such cases, introduce both fists into the rectum with ease.

DR. PEASLEE closed the remarks by saying that, in the first place, we should consider that the uterus of a woman who had not had a child for four years, could not, in its normal state, contain a body half as large as the pessary in its cavity. The whole organ must, therefore, have been very large, and we have reason to assume, said he, that the os was so also, and very probably patulous. This being admitted, he did not see why the pessary might not dilate the os like a compressed sponge. The fact that pain followed its introduction, rendered it probable that the instrument was not properly applied. With this view of the case, Dr. P. saw no difficulty in adopting Dr. Detmold's explanation of the case. He would, however, like to know from the practitioner who applied it, if the os was not very large and patulous. He thought the cavity of the uterus was three or four inches long.

Necrosis of the Neck of the Humerus.—DR. CHARLES K. BRIDGON presented a specimen of necrosis of the external lamina of the internal aspect of the anatomical and surgical neck of the humerus, with the following history:

Elizabeth Luer, aged 17 years, apparently healthy, and free from acquired or hereditary taint, received an injury in the vicinity of the shoulder-joint, two years ago; she was standing on a ladder and fell, her shoulder coming in contact with an iron stove. Much suffering followed this injury, which was treated as a dislocation, without re-

lief; on the contrary, the manipulations for reduction were followed by severe pain and inflammatory swelling, which lasted three months, when she took cold, had her menses suppressed, and all the local symptoms aggravated; the arm, forearm, and hand became immensely swollen, tense, and painful; an abscess, formed on the inside of the arm, opened spontaneously and closed. At this time she entered the Trenton Hospital, where she was treated by various forms of counter-irritation. A second abscess opened in the site of a cicatrix where a seton had been worn, and this degenerated into a fistulous tract; the swelling subsided, but the limb remained painful and useless, and the fistulous opening continued to discharge freely.

At the time she came under observation, the 7th December, her condition was as follows: Her general health good; the right forearm was well proportioned and not more wasted than its fellow; there was an amount of flattening below the acromion, due to atrophy of the deltoid. On the internal or axillary portion of the upper part of the arm there is a considerable mass of ossific deposit; two inches below the posterior fold of the axilla there existed a fistulous opening, through which a probe passed obliquely upward, forward, and inward to the extent of four inches, and then came in contact with dead bone, conveying the idea of the existence of a central necrosis. The motions of the shoulder-joint were almost abolished, the arm could be abducted about two inches; further abduction rotated the scapula on its own axis; the movements of rotation were also limited.

The *operation* was made on the 10th December. An incision, five inches long, was begun two inches below the acromial process, and was carried in the direction of the axis of the humerus. The periosteum and soft parts were detached freely on both sides; the line of incision disclosing, not involucrum, but the expanded and irregularly roughened humerus itself. A probe introduced at the fistulous opening in the soft parts passed through a similar canal in the posterior, internal aspect of the bone, and appeared to pass towards its anterior and internal portion. A greater portion of the upper fourth of the bone immediately below the tuberosities had to be gouged away before a cavity was disclosed, and with a view to maintaining its continuity and the integrity of the insertion of the pectoralis major and the bicipital groove. The gouge was mainly applied to its outer and posterior aspect. The opening into the cavity was enlarged, and the sequestrum was removed entire; it was small, and apparently consisted of the external lamina of the internal portion of the surgical and anatomical neck. No other bone was detected, but the finger

introduced into the cavity came everywhere in contact with a soft granulating surface, the inner wall of which was separated from the axillary artery and its associates by involucre; the wound was made to granulate, and the patient has so far made the best progress.

Vessels of the Neck, after Ligature of the Carotid.—DR. BRIDDON presented a specimen of the vessels of the neck, exhibiting conservative processes fifteen days after the application of a ligature to the primitive carotid.

The patient from whom this specimen was procured was a colored woman, aged 40 years, suffering from malignant disease of the orbit. The operation was done on the 7th of July. On the 8th the patient was comfortable, and only complained of difficult deglutition. On the 9th this difficulty of swallowing was unabated, and the patient was annoyed by cough; physical exploration of the chest elicited nothing abnormal. On the 10th the cough was less troublesome, and the deglutition less difficult. On the 17th the patient began to exhibit nervous phenomena, which appeared to indicate impaired nutrition of the cerebral nervous centre. The symptoms were clonic muscular spasms, great weakness, tremblings, deafness, without any marked paralysis. The spasmodic movements were so severe that her attendants expressed their fears that they would throw her out of the bed; her faculties became blunted, and these various nervous exhibitions gradually increased until the 22nd, when the patient died whilst her attendant was sleeping. I saw the body before it was disturbed, and should judge from its contorted condition that the patient had died during a convulsive movement.

Autopsy was made twelve hours after death. On removing the calvarium, nothing abnormal was recognized; there existed strong and apparently old adhesions between the visceral and parietal arachnoid, at the base of the middle lobe of the brain, on the left side; the intra-cranial portion of the internal carotid of the left side was smaller than its fellow, and the left vertebral was enlarged to nearly twice the size of the right; the brain was carefully examined, but no appreciable softening existed in any portion of its structure; the left hemisphere was apparently as well nourished as the right; the punctæ vasculosæ were as numerous on one side as the other; the ventricles contained each about a drachm of fluid. On examining the orbit, no growth was discovered proceeding from its walls; the periosteum, lining the outer wall, was thickened, more vascular, and more easily detached than elsewhere; the lachrymal gland very considerably enlarged, lobulated, and apparently undergoing structural change; it reached to the spheno-maxillary fissure.

Examination of Vessels of Neck.—The artery, with its associate vein and nerves, were removed, with their sheath; the ligature was not separated; a firm solid clot occupied the proximal side of the ligature; another, loosely adherent, occupied the internal carotid at its origin; a layer of coagulated blood, not more than a line in thickness, occupied the *cul-de-sac* on the distal side of the ligature, which had nearly cut through the apparently occluded vessel; the vagus nerve was imbedded in, and appeared to be spread out by the pressure exerted upon it by the fibrin effused around the seat of ligature, and a fine network of small vessels carrying red blood ramified over it at the same point; the noni nerve was in a similar condition, as regards the vascularization.

Rent of Diaphragm—Heart on Right Side—Stomach, Omentum and Intestines in Cavity of the Chest—Rupture of Pleural Membrane.—DR. MINER next gave an account of a very interesting post-mortem examination that he had made a short time before.

The patient, a young man of irregular habits, dosed himself with salts, which produced free evacuation, with vomiting. This state of things was soon followed by collapse and death.

At the post-mortem the doctor noticed that there was emphysema of neck and face. On raising the sternum, a very curious state of things presented themselves. The lung very much compressed, and crowded into the upper portion of the cavity of the pleura; the heart was pushed over to the right side; there was a rent through the diaphragm about four inches long, through which a portion of the stomach, large intestine, and omentum escaped into the chest. The stomach was also ruptured inside of the chest. None of the contents of this organ escaped into the abdominal cavity. He thought that the emphysema was due to rupture of the pleural membrane, allowing air to escape into the cellular tissue underneath. He thought, on the whole, it was a very extraordinary case.

DR. KRAKOWITZER said there was such a case reported in the Dec. number of the *Lancet*. The hernia in that case was of a couple of years' duration.

DR. FINNELL had presented a case of hernia of diaphragm to the Society some two years ago. It occurred in a negro, who had been beaten and died after a few day's illness. The stomach occupied the right pleural cavity. There were two false passages. There had been reported thirty or forty similar cases.

Dr. F. thought that this hernia of diaphragm existed from birth, and that, on the sudden application of violence, the abdominal organs were forced through.

DR. MINER stated that in his case he thought that the hernia was the immediate result of the strain of the muscle in the act of vomiting.

DR. PEASLEE thought that the rupture might be due to the presence of fatty degeneration.

REVIEWS AND BIBLIOGRAPHY.

A Treatise on Human Physiology, designed for the Use of Students and Practitioners of Medicine. By JOHN C. DALTON, JR., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York, &c., &c., &c. With two hundred and fifty-four Illustrations. Philadelphia: Blanchard & Lea, 1859.

A new elementary work on Human Physiology lifting up its voice in the presence of late and sturdy editions of Kirke's, Carpenter's, Todd and Bowman's, to say nothing of Dunglison's and Draper's, should have something superior in the matter or the manner of its utterance, in order to win for itself deserved attention and a name.

That matter and that manner, after a candid perusal, we think distinguish this work, and we are proud to welcome it not merely for its nativity's sake, but for its own intrinsic excellence. It is the first American work of its kind which, like those emanating from Bernard or the French school—from whom, indeed, it takes its inspiration—teaches physiology more from a material than a transcendental point of view. With it as with them, facts have a higher potency than formulæ, and in the finding of new facts, in the testing of old, and in determining their true value and place; or, in other words, by observational and experimental study only, is knowledge of the phenomena of life to be advanced. That this path leads through no barren region, the results gathered in and illuminating this work fully evidence.

And now first, as to its manner. Its language we find to be plain, direct, unambitious, and falling with a just conciseness on hypothetical or unsettled questions, and yet with sufficient fullness on those living topics already understood, or the path to whose solution is definitely marked out. It does not speak exhaustively upon every subject that it notices, but it does speak suggestively, experimentally, and to their main utilities. And herein, we think, consists the peculiar merit of the work, not so much or merely for its facts or conclusions,

as the manner in which it works up to and teaches them. In the spirit of independent inquiry it thereby tends to initiate and improve in the mind, we think we see more of promise for the science than if it had been a cyclopædia upon the subject.

Scattered through and enlivening the volume are two hundred and fifty-four illustrations, all but eleven of which are said to be from original designs. To many this will be one of the most attractive features of the book, and it certainly is with no regret we miss some of the old familiar figures that kept turning up so persistently and indelibly in the pages of almost every new American reprint. It is something even to look upon a new grouping of blood-cells, a new range of villi, a new outline to the bowl in which the coagulating clot is pictured, a new distribution of the facial nerve or a new curve in a spermatozoon; but still, unless making full and clear what else would be deficient or obscure, or better defining what previously has been well portrayed, we see nothing in the mere fact of novelty to render them exclusive, nor any reason why more than eleven designs, if from established magisterial sources, might not have been properly and profitably incorporated in the work. All that we mean by this remark is, that new designs can neither have, nor claim, peculiar precedence or merit merely because they are new.

And now, what we have to say of the matter of this work can only take the form of a running notice, which must necessarily be as brief as it will be imperfect.

With a few preliminary considerations about the mode of study, and fewer still upon the usual introductory scholastic themes of life and vital force, and vital properties, and vital stimuli, our author divides his subject not very naturally or scientifically, but perhaps conveniently, into these three distinct sections:—1st. All that relates to the nutrition of the body. 2d. The phenomena of the nervous system; and 3d. The process of reproduction.

In the study of nutrition, he begins with that of the proximate principles entering into the composition of the body or its food, and which are defined to be substances, simple or compound, chemically speaking, which exist under their own form in the animal, solid or fluid. These principles are divided into three classes—the first of which embraces substances inorganic in their nature; the second, crystallizable substances of an organic nature, which in other books are sometimes termed the non-nitrogenous; and third, organic substances proper, otherwise known as the nitrogenous or protein compounds. He who learned the names of these compounds a dozen years ago will find

some new acquaintances included here, such as pancreatine, mucosine, osteine, cartalagine, muscaline, melanine, biliverdine, urosacine, and will look around in vain for gelatine and chindine, and some others. Old fogies that they were, they must needs go under.

No full or perfect list so far as yet completed, is given, and only the most prominent of these proximate principles are referred to in the text—an exclusion which some anxious dietetic reader might wish supplied, when he finds among the remarks that follow upon food, the statement that, for the due nutrition of the body, no single proximate element or even class of them alone is sufficient, but substances from all the groups are necessary, and that starvation may follow just as surely from deprivation of the salts of lime and soda, as of oil or albumen.

The chapter on digestion is extremely interesting, both from the nature of the subject and the admirable manner in which it is discussed. Through comparatively modern research, truer and more definite ideas of this process have been gained, and this important characteristic established, that different digestive fluids in different parts of the alimentary canal are concerned in the digestion of different elements of the food. These fluids, five in number, are the saliva, the gastric juice, the bile, the pancreatic fluid and intestinal juice.

The starchy reputation of the first is gone. Though saliva has a curious catalytic power of converting boiled starch into sugar, yet such is no longer deemed its physiological function. When the mouth waters now, it does so merely to moisten or to lubricate the food.

The gastric juice, first decisively experimented upon by Beaumont, has since his time, by aid of gastric fistulas established in some of the lower animals, been still further studied. Among the names of those who have made a happy use of these convenient means, our author's has its place.

The free acid found in gastric juice, now seemingly established as lactic acid, and that organic matter, known as pepsine, are both important ingredients, and essential to its constitution. Among the singular properties of gastric juice is its inaptitude for putrefaction, and that when mingled with bile it loses its digestive power—a fact not without significance. Gastric juice affects but a single class of proximate elements—the albuminoid substances; and these it not only disintegrates, but liquefies, and by catalytic action converts into a new substance called albuminose, which, when present, is found to have the peculiar property of interfering with Trommer's test for grape-sugar, and also with the mutual action of starch and iodine.

It is an interesting question how much gastric juice our stomachs daily secrete. Sufficient data have been obtained to throw this question into an almost soluble proposition. Thus, if the stomach of a dog secretes thirteen pints while digesting one pound of beef, how many pints would the stomach of man secrete during a like operation? In working out the answer to the last term, even if the mind does not get it decimally exact, it well perceives the enormous quantity necessarily exhibited each day, and which is only to be explained upon the principle of revolving processes—that of continued reabsorption following hard upon secretion.

The place for the digestion of the starchy elements of the food seems fixed in the small intestines, and the agents that accomplish it, the intestinal juice from the glands of Brunner and the follicles of Lieberkuhn.

The pancreatic fluid, though capable of converting starch into sugar, has assigned it a special duty above the bile or other fluids, to meet, disintegrate, and emulsify the fatty matters of the food. Hence this process of digestion—this preparation of the food for absorption, is found to be not a simple, but complicated affair; not confined to the stomach alone, but progressive down through the whole track of the small intestine.

The little villi, with their blood-vessels and lacteals pushed about and stirred up to greater activity by each peristaltic movement of the intestines, are the busy agents in the process of absorption. These two sets of vessels, however, have each their preferences as to what they carry into the circulation. Thus, the lacteals only, but not exclusively, take up the oily matters of the food as chyle, while the blood-vessels, although partly sharing with them this labor, are mainly burdened with albuminose and sugar. Once absorbed, these nutritive materials pass, by catalytic transformation, into other forms, and become assimilated to the pre-existing elements of the circulating fluid. Before starting with them on their rejoicing round, two preparatory and perfecting processes are noticed: the secretion and reabsorption of the bile and the glycogenic action of the liver.

The subject of the bile is studied as if *de novo*. Although enumerated as one of the five digestive fluids, it turns out upon examination to have no particular digestive function, but, from circumstances and experiments, would appear to be simply an excrementitious fluid, and yet its secretion and discharge into the alimentary canal are found necessary for the maintenance of life. What is then and there its office is not so plain. Perhaps it lies hid behind some convenient

catalytic cover. Of its disposition, however, there is little doubt; it is reabsorbed.

Bernard's notable discovery of the sugar-making function of the liver is well developed and detailed.

The spleen takes its place as a gland without an excreting duct, and modifies in some undiscovered way the constitution of the blood that filters through its tissues. Two singular effects are noticed to follow its removal in the lower animals—an increase in the appetite and the temper, both of which become unnaturally fierce.

The blood itself comes next. The red and the white globules no longer dot the field of the microscope as cognate forms, but appear distinct as different colored roses. They merely mingle side by side, but never blossom into each other. Neither are they, any more than other anatomical forms, destroyed and renovated, but their proximate principles only, through this process of nutrition.

Following the steps of our author, who chooses to advance by processes rather than by functions, we come to respiration. Two sets of movements accompany the act—the one of the chest, the other of the glottis. Two sets of changes also follow it—one in the air passing over, and the other in the blood passing through the lungs.

By the first the air loses oxygen, gains carbonic acid, a little extra nitrogen, a faint animal odor, and gets loaded down with the vapor of water. By the second the blood gains in oxygen, and in losing carbonic acid and water, loses its dark venous color, and becomes, as it is called, arterialized. The lung is no longer a laboratory for the chemical combination of the gases of the air and the blood, but a mart rather, for their reciprocal interchange. The oxygen in a state of solution, and principally by the blood globules, is rolled off freely down the arterial highways, while the carbonic acid comes lumbering up the venous tracks in the same state of solution, and by the same conveyances. Where is this latter formed? Not in the lungs alone, but in the blood also, and tissues mainly. What is its origin? Not the oxydation or direct reunion of the oxygen with the carbon of the tissues, but the decomposition rather of organic tissues, of which, perhaps, it is but one of the residuary products.

Since Lavoisier's time, when it was thought we carried our heaters in our breasts, the subject of respiration has been intimately associated with that of animal heat. Liebig powerfully extended this idea, but we are glad to find his wasteful notions, that would consume so much of our tissues and our food, merely to keep us warm, are giving way before a new and improved method, that attains the same result,

through the chemical combinations and decompositions, solutions and dissolutions, actively and incessantly going on in the body during the process of nutrition.

It is a relief to think we are not yet burning up.

The blood is the fluid vehicle by which the substances produced in the particular organs are transported and exchanged throughout the body, to be perfected, incorporated, eliminated or expelled. The heart, the arteries, the capillaries, and the veins are its circulatory apparatus.

The heart, with its spiral fibres, lifting up its apex, and elongating its ventricles, as these contract to drive through pulmonary and aortic openings the blood received passively and perforce from the auricles, has a motion peculiarly its own, and which it is acceptable to find was best described by Harvey himself, two hundred years ago. The sounds of the heart—the second of which has so long had a combination cause—are both assigned a valvular origin; the first is usual to the closure and tension of the aortic-pulmonary, and the second altogether to the closure of the auriculo-ventricular valves. The arterial circulation is not a simple phenomenon, but the result of two different physical forces—the elasticity of the arterial walls, and the alternating contractions and relaxations of the heart. The veins continue to pass along their contents by the aid of such expansion of the chest, such contraction of the voluntary muscles, and especially by aid of the *vis a tergo* of capillary circulation.

Although, when looked at in the field of the microscope, this latter circulation seems surprisingly spirited and active, yet it is, in fact, considerably less rapid than that of the arteries or the veins. The force that regulates it is a local one, which that action of fluids known as endosmosis and exosmosis, doubtless truly expresses, if it does not clearly explain.

And so the blood gets round. Not indeed in a direct, simple, and continuous circuit, nor with uniform rapidity, but dallying sometimes longer in one organ than another, whirling around a while, in some near eddy to the heart, to be soon returned, and sent to one more remote; now bearing oxygen to distant tissues; now exhaling in the lung the carbonic acid, which it has accumulated elsewhere; supplying here a fluid secretion; transuding there, on its passage through one set of capillaries, substances to be fashioned into cartilage or bone, and through another set, substances to become, by catalytic action, muscles, nerves, or gray matter of the brain; and thus, only after a busy bartering-time, does it finish up its round. That process of

glandular exaction it suffers in its course must not be forgotten. The act is called secretion, the product *a* secretion. Each gland turns out its own peculiar work, as the lachrymal the tears, the mammary the milk, and never acts vicariously for another gland. Ten of these secretions used in the different physical and chemical actions of the body are mentioned. Five classes as digestive fluids have been referred to; five remain, to wit: mucus, sebaceous matter, perspiration, the tears and milk. We cannot stop to study them, nor ask for more about perspiration ducts that only keep us cool, and that traditionary bug-detering matter, which the ceruminous glands of the ear so prudently secrete. We cannot even stop to think why secretions from other glands whose consideration is deferred, have not as systematic a right to be considered among the ten as milk, but pass to the last division of the great nutritive function, the process of excretion.

Through the constructive and destructive assimilations—the growth and decomposition incessantly going on in living organisms—certain useless products no longer exhibiting vital properties, nor capable of further vital functions, are left as waste remainders. They are the wear and tear of the body's elemental transformations, and destined as excrementitious substances to be removed. Their production, their absorption by the blood, and their final elimination, make up the vitally important process termed excretion. Eight of them are given: carbonic acid, cholesterine, urea, creatine, creatinine, water of soda, water of potass, and urate of ammonia. The first has been already alluded to. The second, originating in the brain and spinal cord, is conveyed by the blood to the liver, and discharged with the bile. The remaining six are all ingredients of the urine, the consideration of which closes, in an interesting manner, this chapter, and the first great division of the work—to wit, the process or the function of nutrition.

The phenomena of the nervous system fill up the second great division. We are sorry that space will not permit us to run, at least cursorily, through this, as we have done the section that precedes it. A general glance and a general judgment must suffice. The parts devoted to the pneumogastric nerve and the system of the great sympathetic are full of strong and inviting points, but aside from these it does not seem to us as if our author deals as fairly or as intimately with this as with the other two divisions of his work. It may be but a little thing, indeed, to find Bernard's name quoted on some petty point of reflex motion in a strychnine-poisoned limb, and his who first discovered and made known the laws that govern this important

kind of action presided over by the spinal cord, not once alluded to; but might not this system itself, elaborately unfolded, have well supplied the place of what some might deem by-gone topics, and matters too elementary for the character of the work?

Into the subject of Reproduction our author plunges with a kind of loving spirit. Throughout this interesting and obscure department he is a clear and admirable teacher, sometimes a brilliant leader.

In the pages of the work we have been traveling over, occasional practical suggestions or deductions from the matters of the text are to be met with. We do not quarrel with these refreshments by the way; but, having given any, might not their number have been increased?

One other final remark. We would not dispute with the publishers of this work concerning what after all may be only a matter of taste, but we cannot reconcile it with our notions of the beauty or fitness of things to have forced upon us, under such a healthy title as *Human Physiology*, eighty such morbid-looking pages in the shape of a catalogue as the covers of the book we are now closing contain. L.

The Transactions of the American Medical Association. Vol. XI.

[CONCLUDED.]

The Report "On the Influence of Marriages of Consanguinity upon Offspring," by Dr. S. M. Bemiss, of Louisville, Ky., touches upon a very important matter, concerning which it is time that the profession were qualifying themselves to speak with authority derived from knowledge. The frequency of the occurrence of these connections; the general opinion of the community, or at any rate of the profession, against them, and the strict rules of the Mosaic law which forbid the nearest of them, all make the subject of this paper one of unusual interest.

The whole report occupies somewhat more than one hundred pages of the volume, of which all but twenty, more or less, are occupied by statistical tables. Some of the interesting items which we notice in the report are these:

The author believes this to be the first extended attempt to obtain accurate statistics upon the subject. "Eight hundred and seventy-three observations of marriages of consanguinity are arranged on the table."

Of these, *ten* cases are of incestuous intercourse between brother

and sister, or parent and child, while *twelve* are between uncle and niece or aunt and nephew. Parental infirmities are entailed with great certainty upon the offspring. Deaf-dumbness, blindness, idiocy, insanity and scrofula, seem to be the legacies most commonly transmitted to children, or those to which the children of relatives are especially subject. The author is satisfied that over ten per cent. of the deaf and dumb, and over five per cent. of the blind, and near fifteen per cent. of the idiotic in our State institutions and throughout the country at large, are the offspring of kindred parents, or of parents themselves the descendants of blood intermarriages.

The "Report on the Functions of the Cerebellum" is by E. Andrews, M.D., of Chicago, Ill., and is the result of inquiries in comparative anatomy; the subject not being complete without a further report, which the author evidently intends to make. The propositions supported by the reporter are as follows:

"1. In the warm-blooded animals, the median lobe, or vermiform process of the cerebellum, varies in size, directly as the bulk and power of the anterior group of muscles.

"2. The lateral lobes vary in like manner as the power of the posterior group of muscles; subject, however, to certain variations hereafter to be mentioned."

Towards the close of the report, the following sentence occurs, and sufficiently exposes the author's doctrine, so far as it has been developed by this paper: "It seems to me, therefore, that, while it may be true that the mind, through the cerebellum, co-ordinates motions, it does not do so because it possesses a specific function of co-ordination, but simply because its action is directly *excito-motor*, and the mind through it can select any muscle or set of muscles it may choose for action."

There are eighteen wood-cuts illustrating the paper, most of them being original, though several are from M. Serres' "Anatomie du Cerveau."

Dr. Mark Stephenson, of New York, is the author of the next paper, "On the Treatment best adapted to each Variety of Cataract." It is accompanied by five colored drawings, illustrating the process of absorption of the lens in a child who was operated upon for traumatic cataract. Dr. S. contends that there is no occasion to repeat the operation, as is frequently done, and this case is given to show the results of a single operation. Unfortunately it is not complete, the patient having passed from the author's observation while the absorption was still imperfect. The paper is a pleasant discussion of the various methods of treating the disease which is its topic.

There are two papers (one, that which next succeeds and the other following the next two reports,) which may properly be spoken of together. The first, by Dr. C. B. Coventry, of Utica, N. Y., is entitled a "Report on the Medical Jurisprudence of Insanity." The second, by Dr. D. M. Reese, of New York, is a "Report on Moral Insanity." Dr. Reese's paper is the result of the James Huntington trial, and we are not certain that the other is not also. At the time of that trial it will be remembered that the defence set up the plea of moral insanity, supporting it by the opinion of two eminent physicians. Much attention was drawn to the case, which had before become notorious, and the opinion of the medical witnesses were peremptorily challenged by many members of the profession. So far this was well enough. Differences of opinion on doubtful cases of insanity may readily exist, and are entirely compatible with the most honest efforts to ascertain the truth. But a portion of the profession denied the existence of any form of insanity which might properly receive the name of "moral insanity." Others, unwilling to go to this length, denied that it was possible for "moral insanity" to exist alone, but alleged that it must be accompanied by more or less of insanity in less obscure forms. Of these latter classes Dr. Reese assumed the championship, and dealt many, if not always weighty, blows upon the medical experts, and all who believed in the existence of moral insanity. It was not unnatural, then, that he should be called on at the next succeeding meeting of the Association to give his views of this subject. The paper embodies those views.

Dr. Coventry's paper is on the more general subject of the medical jurisprudence of insanity in its various forms, and of course devotes much less space to the special subject of *moral mania*. Still, what is said of it is so much to the point, and is so evidently the work of one familiar with the subject, that it may properly be compared with the more extended paper of Dr. Reese.

In such a comparison we give a very decided preference to Dr. Coventry's doctrines. They are those to which it seems to us any one must arrive who studies the subject carefully, without bias, without any foregone conclusion before entering upon the investigation, and with the sufficient access not only to *books*, but to *patients* on whom observation may be made. Dr. Reese is evidently frightened, in part for theological reasons, from assenting to the general views of the best authorities upon the subject. He is anxious about his doctrine of moral depravity, and makes several quotations from the Scriptures, which seem to us most inapt and irrelevant.

But this is the usual ground on which objection is made to the distinction of moral mania. Theological dogmas are invaded, it is supposed, or some such danger is apprehended. But Dr. Reese also sees in this doctrine an offshoot from that root, phrenology, which his soul abhors—and hence another reason for his dislike of it. He is no more crossed in this than in his other objection, but he more or less waxes warm on it. He may be said to be driving two hobbies on this subject, and they have run away with him.

To argue the whole matter here is impossible, neither is it necessary. The distinction, as made by writers on, and experts in insanity, is a good and correct one, and it becomes those who have not made this point a careful study, not only in theory but practically, to listen with some respect to those who have made it a life's study.

But Dr. Coventry's paper treats of other points in connection with insanity, which are of great and of general interest. Among these may be enumerated, the tests of insanity; the plea of insanity in criminal cases; when it becomes a subject for the courts; when it is a proper ground for depriving a person of his liberty, or of the care of his property, or of the disposal of it by will; its relations to crime; feigned insanity, and experts in court. The paper is, in short, full of good advice, of sound discrimination and valuable suggestions, abundantly repaying one for a careful study of it. We only regret that we cannot make large and copious extracts from it.

There are, between the two papers on insanity which we have been discussing, two other papers, the first being on the registration of births, marriages, and deaths, by Dr. Edward Jarvis. It constitutes a very good synopsis of what has been done in registration in this country, and expects to do better things. But the second paper is much longer and more elaborate. It is written by Dr. Campbell, the topic being the "Nervous System in Febrile Diseases," and was noticed at length in the April number of the MONTHLY.

Resuming the regular sequence of the papers as they stand in the volume, we reach a report on *Stomatitis Materna*, by Dr. D. L. M'Gugin, of Keokuk, Iowa. The prevalence of this disease in the North-western States, as well as in many other parts of the country, and its entire absence from other sections, cause it to be true that, while it is frequently treated by some, many other practitioners of large experience have seen it rarely, or not at all. The author's recommendations are judicious, though we have found more relief to be afforded by the use of astringent mouth washes than seems to have been his experience. These are not, of course, curative, but are use-

ful palliatives, enabling the patient to take nourishing food, a most essential thing in this disease. Myrrh and cinchona, in equal parts, often afford much relief in this way, adding greatly to the comfort of the patient. A watery preparation has to be used, as the alcohol of tinctures does harm.

Whatever is written on medical topics by Dr. J. B. Flint, of Louisville, Ky., is worth reading; and, it may be added, that it is usually entertaining. His report on the true position and value of operative surgery as a therapeutic agent is no exception to the rule. The ideas illustrated by the report are well summed up in the propositions which we quote below, regretting only that there is not space at our command to make extracts which should give more of the life and spirit of the report.

"1. The true position and real dignity of all therapeutic agencies are the same, determined by intrinsic and not accidental considerations; and operative surgery has no rightful pre-eminence, in this respect, over other sections of practical medicine.

"2. There are *pseudo-surgical*, as well as *vero-surgical* operations—the latter being such only as are undertaken with a therapeutic purpose and *probability*; and if any of these confer more distinction upon him who performs them, than others, they are such as are most eminently beneficial to the subject of them.

"3. Of this character are not, in general, those which constitute the staple of what we have termed 'dramatic surgery,' denominated also 'heroic' or 'exploital' surgery; and these performances, therefore, should be scrutinized very carefully before they are reckoned among the legitimate agencies of our art, or allowed to become the criteria of professional ability or merit.

"4. The fascinations of 'dramatic surgery' are dangerous to professional morality and mischievous to society, and we should endeavor to replace them in ourselves and the public, by just and rational views of the operative proceedings of our art.

"5. Under the designation of 'conservative surgery,' there is at present an endeavor at reforms in operative surgery, which commends itself, most urgently, to the co-operation of all wise and conscientious practitioners."

The next report is brief, and yet of sufficient value for us to present it entire. It is entitled "A Method of Preserving Membranous Pathological Specimens," by Dr. R. D. Arnold, of Savannah, Ga.

"The specimen is well washed in cold water; it is then cut, so as to be stretched upon a pane of ordinary window-glass. The side to

be applied to the glass is to be lightly sprinkled with arsenic. The free surface is to be thickly powdered with arsenic, and the specimen is then to be kept in the shade, and, as the arsenic becomes absorbed, more is to be sprinkled on, until it becomes dry. After that, a coat of white varnish is put over the whole.

"I present for inspection specimens from two different subjects of the morbid lesions of typhoid fever. One set was prepared in July, 1855, now nearly three years since. The second was prepared about three months since.

"Last summer I prepared thin slices of a cirrlosed liver in this manner, and had every reason to believe this method might be applied successfully to parenchymatous specimens, as well as to membranous ones. Unfortunately, they were taken away by some person unknown to me.

"The specimens presented are those of the lesions of typhoid fever, and were prepared in the following manner:

"The intestine was cut on its omental edge, then washed; a little arsenic was sprinkled on its peritoneal surface, and it was then stretched on the glass, the peritoneal surface being placed next the glass, and the mucous membrane being external. It was then treated as pointed out before."

An unimportant letter from Dr. Fenner, of New Orleans, closes this portion of the volume, there remaining only two papers, the prize essays, both of which demand a separate and elaborate discussion. The topic of the first is, "The Clinical Study of the Heart Sounds in Health and Disease," the author being Dr. Austin Flint, Sen'r. The second essay is by Dr. A. Pallen, upon "Vision, and some of its Anomalies, as revealed by the Ophthalmoscope." Hoping to return to these at a future day, we thus close our notice. P.

The New American Cyclopædia: A popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume V. Chartreuse-Cougar. New York: D. Appleton & Co. pp. 770.

Each volume of this important work, as it makes its appearance, impresses us more and more with its usefulness, and we are satisfied that the whole will fill a place which has been vacant for years. In the present condition of knowledge, every decade of years will require a new Cyclopædia, or that new and improved editions of the old

should be furnished the reading public. The present Cyclopædia has the advantage of being sufficiently full on the subject of abstract sciences, to give a general idea to the ordinary reader, while it has avoided the prolixity of detail which belongs properly to separate monographs. Our opinion of the work has been confirmed and strengthened by the appearance of this volume, and we believe that every student will find it a convenient book of reference to have on his shelves.

The Cyclopædia contains short sketches of the lives of living celebrities, which is a feature somewhat peculiar. To furnish such sketches, especially of political characters, is a most difficult task. What is to be feared is the exhibition of a partisan spirit in describing the political views of the person whose life is furnished. We have observed a little too much of this in one article on a prominent politician of the present day, and would suggest that, as a general thing, the preparation of articles on subjects about which there are partisan differences should be confided to cool heads, free from all political bias. This suggestion is made because we want this publication to be emphatically, what we hope it shall prove to be, even to the last volume, an *American Cyclopædia*.

We have often wondered how the editors were able to furnish the public a volume every three months—looking upon the herculean labors involved in the preparation of near 800 double-columned pages—but our curiosity has been satisfied by the publication in this volume of the list of contributors. One hundred and seventy-two names of gentlemen prominent as litterateurs or savants are comprised in this list. We notice the following as selected from the medical profession: Drs. Thomas M. Brewer, L. P. Brockett, E. Brown-Séguard, H. Doherty, John W. Francis, C. R. Gilman, Hy. Goadby, Augustus A. Gould, A. A. Hayes, S. Kneeland, Jr., C. Kraitsir, B. W. McCready, J. W. Palmer, E. R. Peaslee, Levi Reuben, N. P. Rice, R. Tomes, W. M. Whitehead, James Wynne, E. L. Youmans, and R. T. Trall.

To draw our notice to a conclusion, we need only repeat, what we believe we have said before in a previous notice, that this is the freshest, clearest, most concise and intelligible, and most useful Handbook that is accessible to the American student.

L. H. S.

EDITORIAL AND MISCELLANEOUS.

"*The Dangers of the Physician.*"—This is the title of a chapter in "*The American Citizen*," by the Rt. Rev. J. H. Hopkins, of Vermont, and we have been tempted to glance over the contents of the same, with the view of seeing what the learned author could find to say on the subject. We have been somewhat surprised at the position he assumes with reference to two notable forms of quackery, belonging to the present age. After having set forth as one of the dangers of the profession—"the liability to confound *facts* with *conjectures*, to assume a vast deal which is not susceptible of proof, and to refuse a reasonable hearing and a fair examination to other facts, as well supported as their own by a respectable amount of evidence, because the *speculative hypothesis* of those who adduce these facts does not agree with their old or favorite theory"—he proceeds to suggest some thoughts with regard to the mode Hydropathy and Homœopathy should be treated by the profession.

He objects to the use of the term *quackery* as applied to Hydropathy, since "this word properly attaches to imposition and deceit; whereas, in the Hydropathic plan, everything is simple, plain, and intelligible." What is the very essence of quackery, but the application of one course of procedure—one plan of treatment to all possible cases of disease, without a recognition of the difference of constitution and temperament in different individuals—of the varying tissues that may be attacked by disease—of an animal system capable of being impressed upon from without in a thousand ways? This so-called system has not been opposed because an illiterate peasant, Priessnitz, has propagated it; but simply because that which constitutes an effectual means of treatment, under *certain* circumstances, is pushed forward as the only proper treatment under *all* possible circumstances; because that which, in its place, is a most reliable aid to the physician, is made to be the only possible means of controlling disease. No enlightened physician has pretended to discard water from his practice; to reject it as a most unreliable agent, simply because Priessnitz, in his ignorance, and his followers, in their blind fanaticism, have misused it. No educated practitioner has hesitated to prescribe bathing, subsequent friction, temperance and exercise. Such are hygienic means that he has been taught to employ, both by text-books and lectures. If he neglected them, don't elevate, to the dignified position of a science, a system which rushes into the other extreme, and employs them, and them alone. The proper way is to show the physician his

error—make him understand that all the agencies of nature are to be legitimately employed by him in the treatment of disease. But if we are to take up with a system, which was blindly employed by its originator, still more so by ignorant imitators or cool speculators in novelties, and claim for it simplicity and intelligibility, whereas, nothing like a clear explanation is furnished by it of the supposed *modus operandi*, we may as well give up our reasoning faculties, and blindly follow any routine that is prescribed for us by a successful experimenter.

“Granting that mankind knew the salutary effects of these things (viz., the bath, friction, temperance and exercise) already, yet it is certain that they were never so combined before, as not only to make them a substitute for medicine, but to conquer diseases by their means, which the best physicians had failed to cure. In the power of this combination lay the value of the discovery.” Now, in sober truth, this is *too* bad. Come forth, brethren, from your offices, and learn that the agencies, referred to here, were never collectively employed in our profession *until* Priessnitz first caught the happy thought! Ponder over this announcement until all that has been taught you in the years of your pupilage, until all that has been ordered by you for your patients, during long years of faithful practice, shall have faded from memory; and then—hail Priessnitz as the discoverer of an art which goes beyond the teaching of books—“a practical efficiency.” Cast all books on Hygiene and Therapeutics in the fire; stultify yourselves by forgetting their contents; and *then* you may believe that the peasant first announced the use of cold water to the world.

“The liability to confound facts with conjectures” is a great danger to our profession, but another danger arises from the confounding of conjectures with facts; and in this particular, can we recognize the difference between a medical philosopher and an empiric—that the former carefully separates what is conjecture from fact. The empiric does not recognize the difference between a sequence and a consequence. His banner has inscribed upon it in flaunting colors—*post hoc ergo propter hoc*. In case he finds the *post hoc*, it must necessarily be *propter hoc*, and all the world are invited to put themselves in a position where they shall obtain the same result. The medical philosopher is not satisfied with a mere sequitur; it must be a necessary—*a logical sequitur*; and all his study of the Protean character of disease has taught him that no two cases are exactly alike, and hence no two modes of treatment should be precisely the same. The objection to any of the so-called systems of the day, as such, is not that they em-

body truth, but exhibit it through a refractory medium; let us grasp the whole truth. "The *use* of antimony" did *not* result "from the observation of a monk upon its fattening hogs;" its *abuse* resulted in this way. Valentine found that the hogs which fed where the refuse material from his experiments had been thrown, seemed to fatten; accepting the sequence as a consequence, he endeavored to produce such an effect on his brethren, and the result is well known. No better illustration could have been brought forward by the author to set forth the folly of hasty conclusion and the danger of confounding facts with conjectures.

"Far wiser, then—far better, and more just, in my humble opinion, would it have been, if our regular physicians had frankly admitted the facts of Hydropathy." Now, we think a still wiser thing has been done in retaining our hold on that which an effort has been made to take from us, and to present us a new discovery, and the foundation of a new theory.

The author of "The American Citizen" thinks that, with respect to the objections brought against Homœopathy, as regards the doctrine that "the effects of every remedy are increased by the smallness of the quantity, provided it be taken in a state of exceedingly minute division"—that "Hahnemann has not been dealt with fairly;" and proceeds to say that there is nothing absurd, provided that the medicine be in such a state of exceedingly minute division, since it is *then* "*likely to enter the system by absorption.*" He proceeds to quote the different actions of mercury, when given in small and large doses—by which he only proves that small doses of this, as well as other agents, may enter the system by absorption, but not that the powerfulness of its action increases with the diminution of the quantity employed. Let us have the so-called "*facts,*" adduced in proof of this, brought forth, and let them not be "confounded with conjectures." It is admitted that "Hahnemann may have, perhaps, carried it to an extravagant extreme"—and this is just the peculiarity of Homœo-quackery, as a system, that it *has* pushed the idea of small doses, acting by absorption, to a ridiculous extreme.

Again, we are told that there are "enough of acknowledged facts in the older system, to warrant the principle of Hahnemann"—that like cures like. As illustration, we are reminded that "cathartics are given to cure diarrhœa and dysentery;" "emetics are administered in sickness of the stomach;" "blisters are applied to relieve inflammation of the pleura." Is it not singular, that the fact should be overlooked that such treatment is applied to remove causes, of which these are

simply symptoms? We are told that "the principle on which medicines act must always be a matter of conjecture, and can only be derived from *facts* proved by actual experiments." Have we not "conjecture" and "facts," then, irrevocably mingled, so that it must be a hopeless task to attempt their separation? This plea of forcing belief in theories, by exhibiting facts as proofs, whether they be probable or not, is one of the most unsound methods of arguing that can be adopted. We don't admit the facts of Signor Blitz or Mr. Haller, simply because our reason assures us that our senses have deceived us. And all the fortunate sequences that might be collected in the history of medicine would not make a system credible, if our judgment were not satisfied as to their being something more than sequences—even consequences.

We have been induced to dwell at some length on the views of this author, because we feel that they are erroneous, and the church position he occupies may give them some show of authority. This object is "to show why the regular faculty should regard their rivals with indulgence, rather than to denounce them with contemptuous severity." The real reason for any denunciation of quack-systems is the error they contain. We are willing to receive truth at the hands of any one, but we cannot league with imposture; nor can we admit its followers to a seat alongside of those who worship at the shrine of truth.

The author concludes the chapter under notice with some appropriate references to the physician's duties, as regards the religious state of his patient. These are apt, and well expressed, and we join with him in the persuasion that "no man can be rightly qualified to heal the diseases of the body, who despises union with the soul."

— Among the new mechanical inventions which have been introduced into the department of ordinary labor, none has excited a more lively interest, or promises to effect a greater amount of good to that industrious, over-worked, and poorly paid class of operatives, known under the general appellation of seamstresses, than the sewing-machine. The commercial advantages of this invention do not properly belong to the province of this Journal, but the hygienic results which are promised from it are such as to lead us to take a deep interest in it, as an eminent promoter of health. The statistics upon which to base any accurate calculations as to its effect upon the health of those engaged in operating upon it, are too meagre to allow us to speak with any certainty upon this point, and we are therefore compelled, in the absence of these facts—the importance of which are too obvious to need any argument to enforce—to reason upon general

inductions; and from these we are inclined to give the sewing-machine a prominent rank as a promoter of health among a proverbially unhealthy class.

The Massachusetts returns of deaths give the following classification of the average age at death, among the females included in the list:

Domestics.....	43.96
Dressmakers.....	32.36
Housekeepers.....	51.15
Milliners	35.53
Nurses	54.31
Operatives.....	27.69
Seamstresses.....	41.83
Shoebinders.....	45.59
Tailoresses.....	40.63
Teachers.....	28.70

The aggregate ages of the 2,376 females included in the above list give a general average of 50.39 years to each individual, or about one year less than the average of the male population of Massachusetts, the aggregate in this latter class being 51.34 years to each man.

An examination of this list shows that those engaged in sedentary occupations have a less average duration of life than those whose employment is more active. Thus, housekeepers, domestics and nurses, stand high upon the list, while dressmakers, milliners, operators and teachers, rank low, and tailoresses and seamstresses exhibit a less average of duration of life than either of the active female pursuits. After making due allowance for the different ages of the persons who are engaged in these various pursuits, it is nevertheless true that those who are exclusively engaged in needle-work have a shorter average duration of life than the average among the industrial classes of females, and much shorter than that among the male population.

Indeed, general observation would lead to the same conclusion as that revealed by the Massachusetts returns; for no one at all conversant with this class, can have failed to note the wornout and haggard appearance, which but too surely stamps them as the victims of a low general state of health. Sedentary employment, unremunerative wages, and a confined atmosphere, have each contributed to produce this general result. Now it is on precisely these points that the introduction of the sewing-machine seems to offer great hopes of reform. The operative on one of these machines has a more varied as well as a more active employment. The amount of labor performed is

greatly increased, and the wages much more, than those which the most industrious could hope to gain by the use of the needle unaided by machinery. The space, too, required to operate the machines is greater; and consequently it is impossible for the employer, however much he may desire it, to crowd a large number of work-girls in the same apartment.

Our own personal observations have impressed us with the more elevated standard of health among operators on these machines, than among their fellows, who simply ply the needle with unwearying and painful exertion from early morning until late at night. It is possible that the selection of the females to work these machines may be from a better class, so far as health is concerned, than those usually engaged in sewing, but the uniformity of the result strikes us as a favorable feature. It is to be hoped that those having a number of these machines in their employment, may take such steps as will enable us to speak more positively than it is possible to do from mere casual observation. Statistics are here of the greatest value, and while we leave them to tell their own tale, we may premise, in anticipation of their collection, that we are prepared to expect a less amount of sickness and a lower rate of mortality in this class than is known to exist among needle-women generally.

—M. E. A. GROUX has again returned to New York, after having made the tour of the United States. He has visited all of the leading cities in the Union, and has submitted his case to the examination of most of the principal physicians. The tumor seen in the fissure of the sternum has been the subject of inspection and speculation wherever he has been. We have been permitted to examine his album, in which he collects the autographs and the opinions of all those who have critically examined the movements and sounds of his heart, and have been allowed to extract from it such as will complete the history of this case up to the present time. We have already collected in one paper, in a previous number of the MONTHLY, (Dec., 1858,) the opinions of the leading physiologists of Europe on this interesting case, and we published the Report of the New York Pathological Society in full in the January number of the present year. To these we now add two more, which are the only ones we find in M. Groux's album which merit being recorded as an opinion.

The first is the result of the brilliant experiments of Dr. J. B. UPHAM, of Boston, alluded to in a former number.

Dr. Upham says: "My object was to demonstrate to the ear, through the agency of electro-magnetism, the facts in the mooted question as

to the synchronism of certain of the motions of the heart and great vessels, displayed in the case of M. Groux; and, in this connection, also, to measure accurately the time in which the heart and pulse are conveyed from the centre of the circulation to points more or less remote.

“The following results appeared, viz.:

“(a.) That a minute but distinctly appreciable interval of time elapsed between the impulse of the oval tumor seen in the middle of the sternal fissure and the shock of the heart between the fifth and sixth ribs.

“(b.) That a slightly increased interval was manifest between the impulse of the tumor and the beat of the aorta at its arch.

“(c.) That a still greater interval was perceptible between the tumor and the radial pulse.

“(d.) That the interval between the apex beat and the radial pulse was slightly but appreciably *less* than that between the oval tumor and the radial, and greater than in the case of the first two experiments named.

“All these experiments were minutely recorded by means of a chronograph, delicately adjusted for the purpose, it being found possible by this means to record intervals of time considerably less than the one-hundredth part of a second.

“The calculations of these minute periods of time are withheld till a greater number of experiments shall have placed their accuracy and trustworthiness beyond question.

“The electro-magnetic apparatus on this occasion was under the supervision of Mr. Moses G. Farmer, the eminent electrician, assisted by Messrs. Stearns and Rogers, from the City Telegraph Office. On Saturday, January 8th, these experiments were in the most careful manner repeated, in connection with the delicate apparatus in the Observatory of Cambridge, and verified in every essential particular.”

The other is that of Dr. J. Dacosta, of Philadelphia, who writes:

“The pulsating mass seen through the fissure in the sternum, I believe to be the auricle; it is certainly not the aorta. This seems to be proved from the fact that during a held expiration the fissure fills up, and a mass protrudes, the upper portion of which is clear, partly tympanitic on percussion; the lower (*i. e.*, the one corresponding to the point which was observed to be in motion) is dull. If the position of the parts be normal, is it possible for the aorta to be thus displaced?

“The opinion that this distinctly pulsatory mass is not the ventricle, I base on its peculiar undulatory movement, its position, which hardly

corresponds to the right ventricle, and the entirely different character of sound heard over it and the mass at the lower part of the fissure.

“ *Sounds.*—Presuming, then, this to be the auricle, I studied on several occasions, and in different positions, the sound heard over it. It may be described as one sound, whose commencement is different from its close. The sound is sometimes buzzing, but most usually of high pitch, and rather metallic sounding. The click at its end is often very marked. It differs entirely in its character from the first sound heard over the right or over the left ventricle, both of which are of much lower pitch. It is more like the second sound, heard higher up over the aorta, but also differs in character from this, being much more ringing and metallic. In estimating whether it be really produced in the auricle, it is necessary to compare it with the valvular sound of the aorta, as the question suggests itself, whether it be not this transmitted. The peculiar click heard at its termination corresponds to the drawing away of the integument from the end of the glass stethoscope, as may be easily proved. A similar sound is heard by placing the stethoscope at other points of the chest, and listening when the thoracic walls recede. These observations were made with M. Groux’s glass stethoscope, and repeated with a glass stethoscope placed in Cammann’s double stethoscope.

“ *Aortic Sounds.*—Two sounds are heard at the aorta. The first, a dull, long sound; the second, sharp and accentuated. If the finger be placed immediately below the stethoscope, two impulses are felt. The first and longest vibration corresponds to the first, or long sound; the second impulse communicated to the finger is short, but decided, and corresponds to the second, distinct, flapping sounds. This double impulse over the aorta seems to me to account for the wavy, irregular motion of the column of fluid over the aorta in the instrument M. Groux employs, and would explain the fact that observations made simultaneously with a stethoscope, and by the application of the hand over different parts of the heart, seemed hardly to correspond with the results obtained by the delicate instrument employed.

“ By placing pieces of bone, of gutta percha, etc., in the upper part of the fissure, the aortic sounds, although not as marked, still retained their distinctive character.

“ *Effects of Respiration on the Heart.*—In full inspiration, the sound over the auricle disappears entirely, and returns completely in full expiration. The sounds over the left ventricle lessen in inspiration, and both ventricles are turned inward, so that the beat of the heart is perceived somewhat downward, and towards the median line; a fact

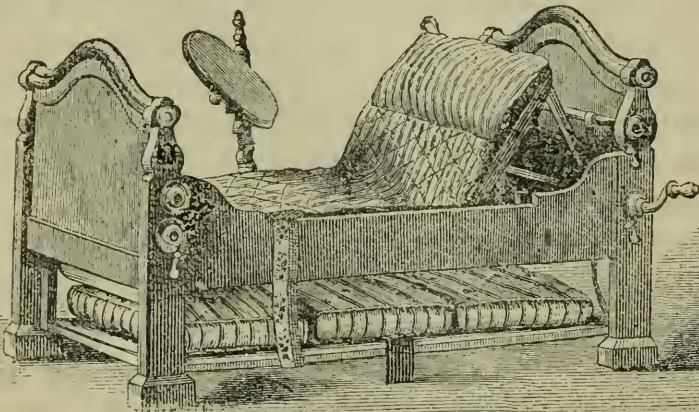
of which I had become fully aware, by observations made prior to seeing M. Gronx."

M. Groux expects to return to Europe soon, but proposes, before going, to deliver a public lecture upon his own case, to repeat the numerous experiments made by Dr. Upham and others, and to illustrate them by vivisections. He has already lectured in several of the cities he has visited, and is prepared to give an extremely interesting discourse upon the phenomena witnessed in his person.

The lecture is proposed to be given on the evening of May 10, at the Cooper Institute.

—An elegant, simple, and most useful invention has recently been introduced to the attention of the profession of this city, in the shape of an Invalid's Bedstead. By means of it, a patient unable to move, or who, by reason of some severe injury, serious disease, or recent surgical operation, it is necessary to keep perfectly quiet, can yet have the benefit of renewed bed-clothing without scarcely a motion on his part. A convalescing patient can have his position changed, by the turn of an attendant's hand, to a semi-horizontal position, or even to a sitting position; and by means of a crank, the mattress can be lowered from the patient, aired, or changed; and the natural evacuations can be performed, without fear of soiling the bed, or a needed change in position; the patient, meanwhile, lying on his back, upon a tensely-drawn sacking, in the centre of which there is an opening large enough to permit of the operation. Or, by raising the head, and lowering the foot portion, a chair can be made, the sections of the mattress being placed upon each other for that purpose.

The accompanying cut represents a bedstead to which this invention has been adapted. As seen here, the mattress is lowered from the sacking, and the head of the bed is raised, so that a person occupying it would be in a semi-reclined position.



The soiled sheet is removed gently and slowly, by means of a roller and crank; at the same time a clean one, sewed to the end of the one removed, is drawn on.

To this bedstead an apparatus is also attached, which makes it peculiarly valuable in hospital practice. This is a simple arrangement, to afford a single or double inclined plane.

It has recently been brought before the Academy of Medicine, and referred to the Section on Surgery. It has also, by order of the Secretary of War, been subjected to the examination of a Board of Medical Officers of the Army.

It commends itself, for use both in private families and in hospital practice, on account of its simplicity, its durability, the ease with which it is manipulated, the comfort it affords the patient, and the exertion it spares the attendant.

— MR. FIGG is advocating in the *London Medical Times and Gazette*, "the delivery of the child by turning, as a general rule in labor." His first sentence is, "No proposition is more universally entertained than that reproduction is, as a general law, opposed to the safety of the maternal parent employed in the process." From this we should at once dissent, if the author means what he appears to say. In another place he meets the difficulty, that two athletic men, pulling with all their force, might pull the child's body from off its head, by asserting that the art of procreation is keeping pace with the advancement of science in the nineteenth century. "Our children's necks are more substantial in character than those of our ancestors." Is not this midwifery run mad?

— *Francesco Della Sudda*, Professor in the *Ecole de Médecine* of Constantinople, and *Pharmacien en chef* of the Ottoman army, has been promoted, by an imperial decree, to the dignity of Pacha, under the title of Faik Pacha, with the official title of Director of the Central Pharmacy of the Armies of the Ottoman Empire. Faik Pacha is a Roman Catholic. The decree, which confers on him, by reason of his loyal services, a dignity reserved for Moslem subjects, up to this date, is a political fact of great importance, which honors no less the government of H. M. Abdul-Medjid, than the intelligent body of pharmacutists of the Ottoman Empire.

Persulphate of Iron in Epistaxis. By JAMES F. HIBBARD, M.D. Richmond, Indiana.

Jan. 6th, 1859, I was called to see J. H., aged 74, who in three hours had bled about sixty ounces from the nose. I used various

remedies, local and constitutional, and after five hours' labor the hæmorrhage stopped. But a little bleeding would take place every few hours for two days, when it started again with some vigor. I then cleared the nostril of all coagula, and after washing it out with two syringefuls of cold water, injected, with a common glass penis syringe, ℥ss. of a mixture consisting of solution of persulphate of iron one part, rain-water ten parts. The bleeding ceased at once completely, and did not return. Neither was there any oozing of blood, for the nostril remained open, and breathing through it very easy. The natural secretion of the Schneiderian membrane was also arrested; but it recommenced in twenty-four hours, and continued. The whole amount of blood lost was about one hundred ounces, and nearly all of it within eight hours after the hæmorrhage began. The patient recovered.

The points of this case worthy of notice are: 1st, The hæmorrhage, after resisting all ordinary remedies, was arrested at once upon the application of a dilute solution of the persulphate of iron; 2nd, The application was convenient, and without pain to the patient; 3rd, The nostril was left clear of clots, irritation, or other unpleasant consequence of either the lesion or the medication.

I ascertained by experiment that a solution of the iron salt of the strength I used, when brought into contact with blood in a cup, coagulated it instantly.

The article in the October number of the *Medical Journal of Medical Sciences*, from which you abstracted the notice in the *Lancet and Observer*, details the process for the preparation of the salt. The preparation I used was a solution of the salt as made and used as a ferruginous tonic for many years, by J. T. Plummer, M.D., of this city; and as the process appears to me much more simple than that of M. Monsel, I subjoin it, with Dr. Plummer's approbation, viz.:

R.—Sulphate of iron, ℥ijss.
Nitric acid, ℥ij.
Water, pure, ℥xss. M.

Triturate the salt and the acid together for fifteen minutes, then add the water, and filter through paper.—*Lancet and Observer*.

Detection of Urine in the Canals of Rotterdam.—Haaxman, with a view of detecting urine in the water, evaporated to dryness, in a water-bath, a half litre of water taken from one of the canals. The dry residuum having been treated with absolute alcohol, was abandoned to spontaneous evaporation. A fragment of this residuum being treated with a drop of nitric acid and dried, exhibited, under a suita-

ble objective, a considerable quantity of crystals of nitrate of urea.—*Journ. de Pharm. d'Amers.*

Glycerole of Tar in Eczematous Impetiginous Eruptions.—Gibert, in the Hôpital St. Louis, prepares this article by mixing 30 grammes of glycerine with 2 grammes of purified tar, and then adding while hot 15 grammes of powdered starch. It can be removed by the simple application of water. As a topical application, "it relieves itching, dries up excoriations, absorbs exhalations, and dissipates redness—in fact, it acts as an astringent and resolvent, without producing irritation."

—The *City Press*, a London paper, states that there are in that city 12 hospitals for general purposes; 46 for special purposes; 34 dispensaries, giving relief to 365,956 persons every year. Income £300,000.

—Dr. William C. Rogers, of Green Island, N. Y., is collecting statistics of prolapse of the funis, and we desire to assist him, by requesting any of our readers who may have had cases, or only a single case of this accident, to communicate them to him. The points on which he asks for particularization are: the age of the patient; number of pregnancy; the period of pregnancy, (full term or not;) presentation, complication; state of the funis during labor; state of the maternal organs; duration of labor; means used to preserve the funis; mode of delivery; sex and fate of the child; together with any other remarks that may be deemed of value. Tables have been prepared by him in which these items are specified, and thus a statement of the peculiarities of any case can be easily made. Copies of the table he will be glad to furnish to any who may desire it, if they will send him their address.

—A writer in the *'Household Words* gives the following description of the discovery of the powerful anæsthetic properties of chloroform:

To Professor Simpson, of Edinburgh, belongs the distinguished credit of introducing chloroform, which has nearly superseded all other anæsthetics. Possessed with the notion that something better than ether existed in the chemical world, the professor set about deliberately to examine any volatile substance which afforded a promise of revealing the required properties. Various gases and liquids were experimented upon; and at last chloroform—a ponderous liquid which provoked no great expectations, and only known as a chemical curiosity in the laboratory—was brought to the trial. Doctor Simpson, with his two assistants, sat down late one night, after an arduous

day's toil, and when most physicians, as well as patients, were wrapt in sleep, began to inhale various substances which had been collected. A small bottle of chloroform had been raked up out of some obscure corner, and was to take its turn with the rest. Each experimenter provided himself with a tumbler or finger-glass, a portion of each selected fluid was poured into the bottom of it, and the glass was placed over warm water to favor evolution of vapor. Holding the mouth and nostrils over the vessel, these votaries of science courageously explored this *terra incognita* by inhaling one vapor after another. At last each charged his tumbler from the small bottle of chloroform, "when immediately," says Professor Miller, "an unwonted hilarity seized the party; they became bright-eyed and very happy, and conversed with such intelligence, as more than usually charmed other listeners who were not taking part in the proceedings. But suddenly there was a talk of sounds being heard like those of a cotton-mill, louder and louder; a moment more, then all was quiet, and then—crash.

"On awaking, Doctor Simpson's first perception was mental: 'This is far stronger and better than ether,' he said to himself. His second was to note that he was prostrate on the floor, and that his friends were confused and alarmed. Hearing a noise, he turned round, and saw his assistant, Doctor Duncan, beneath a chair, his jaw dropped, his eyes staring, and his head half bent under him; quite unconscious, and snoring in a determined and alarming manner. More noise still, and much motion, and then his eyes overtook Doctor Keith's feet and legs making valorous efforts to overturn the table, or more probably to annihilate everything that was on it.

"All speedily regained their senses, and from that day, or rather from the middle of that night, dates the discovery of the marvelous properties of chloroform."

— The remains of the great John Hunter were discovered in the vaults of the Church of St. Martin's-in-the-Fields, after a two-days' search, by Mr. Frank T. Buckland, Assistant Surgeon, Life Guards. The coffin was in excellent preservation, the inscription clear and distinct. It runs as follows: "John Hunter, Esq. Died Oct. 16, 1793, aged 64." The remains have been removed from their first resting-place, and reinterred in Westminster Abbey, in the presence of a large concourse of medical and scientific men. It is now proposed to erect a statue to Hunter, and a subscription to fulfill that intention has already been opened.

— Several new appointments have been made at Bellevue Hospital by the Board of Governors: Drs. Gurley, T. Meier, A. B. Mott, and Church have been appointed Surgeons, and Drs. J. W. Green and Loomis as physicians.

— A new medical college in connection with Lind University has been organized in Chicago. The course differs somewhat from other colleges, in there being a junior and a senior course. The faculty is not yet entirely made up, but consists at present of the following medical gentlemen: Dr. N. S. Davis, Practice; Dr. Johnson, Physiology; Dr. Andrews, Surgery; Drs. Rutter and Byford, Obstetrics; Dr. Mahla, Chemistry; Dr. Hollister, Descriptive Anatomy.

— The new *St. Luke's Hospital*, situated near Fifth Avenue, on 54th and 55th Streets, has recently opened with a full Board of Medical Officers. This hospital is capable of accommodating 200 patients. The attending physicians are Drs. Clark, Heywood, Thomas and Draper. The attending surgeons, Drs. Buck, Peters, and Bumstead; consulting physicians, Drs. Delafield, Cammann, Ogden, and Metcalf; consulting surgeons, Drs. Parker, Watson, Post, and Eigenbrodt; pathological chemist, Dr. J. C. Dalton, Jr.

— The *Chicago Medical Journal* is now solely under the editorial charge of Dr. David Brainard, Professor of Surgery in Rush Medical College. Drs. Davis and Byford retired with the February number.

— The *Saint Joseph's Journal of Medicine and Surgery* is a bi-monthly of 24 to 32 pages, published in St. Joseph, Mo., under the auspices of the Medical Society of that place. The editorial committee consists of Drs. J. H. Crane, D. B. Kuode, and G. C. Catlett. The appearance of the journal is highly creditable, both in manner and matter. We have seen but one number, and shall be pleased if the editors would send us the back numbers of the volume in exchange for those of our own.

— *Tartrate of Iron and Potash in Phagendic Ulcer.*—M. Ricord, of Paris, recommends this salt very highly in certain forms of syphilis. We have used it frequently, with truly surprising results. We now recall to mind a case in which a very large ulcer threatened to destroy the glans penis: the young man was brought very low by exhausting hæmorrhages, and the ulcer was rapidly progressing; in consultation with his attending physician, we advised from 5 to 10 grains tartrate of iron and potash, three times a day, with a strong solution of the same kept constantly applied to the affected part, on lint. The bleeding was soon arrested, and the deep ulcer filled up with won-

derful rapidity. We have used the remedy many times since, and we are always pleased with its effects in similar cases.—*Southern Med. and Surg. Jour.*

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Books and Pamphlets Received.

Nature in Disease. Illustrated in various Discourses and Essays, to which are added Miscellaneous Writings, chiefly on Medical Subjects. By Jacob Bigelow, M.D., &c., &c. Second Edition, enlarged. Boston: Phillips, Sampson & Co. 12mo.

Practical Dissections. By Richard M. Hodges, M.D., &c. Cambridge: John Bartlett, 1858.

On Poisons in Relation to Medical Jurisprudence and Medicine. By Alfred Swayne Taylor, M.D., F.R.S., &c. Second Edition, from the second London edition. Philadelphia: Blanchard & Lea, 1859.

A Practical Treatise on the Diseases of Infancy and Childhood. By T. H. Tanner, M.D., F.L.S., &c. Philadelphia: Lindsay & Blakiston, 1858.

Contributions to Operative Surgery and Surgical Pathology. By J. M. Carnochan, Prof. of Surgery in the New York Medical College, &c. With Illustrations drawn from nature. Philadelphia: Lindsay & Blakiston, 1858.

British and Foreign Medico-Chirurgical Review. Jan. 1859. New York: S. S. & W. Wood.

The Half-Yearly Abstract of the Medical Sciences, No. 28, July to December, 1858. Philadelphia: Lindsay & Blakiston.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part 38. New York: W. A. Townsend & Co.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by George Ripley and Charles A. Dana. Vol. V. Chartreuse-Cougar. New York: D. Appleton & Co., 1859.

The Progress and Spirit of Medical Science; an Anniversary Discourse delivered before the New York Academy of Medicine, Nov. 25, 1858. By E. R. Peaslee, M.D. New York, 1859. (From the author.)

Report of the State of the New York City Hospital and Bloomingdale Asylum, for the year 1858.

The Report of the Resident Physician of the New York City Lunatic Asylum, Blackwell's Island, for the year 1858.

Moral Science and Common Sense: A Lecture introductory to the Session, 1858-9, of the St. Louis Medical College. By M. L. Linton, M.D., Prof., &c. (From the author.)

Journal de la Physiologie de l'Homme et des Animaux, publié sous la direction du Docteur E. Brown-Séquard. Tome Premier, Numero IV. Paris: Chez J. B. Ballière et Fils.

On Medical Colleges: An Introductory Lecture to the Course of 1858-9, in the Medical Department of the University of Nashville. By J. Berrien Lindsay, M.D., &c. (From the author.)

An Essay on the Treatment of Cataract. By Mark Stephenson, M.D., &c. (From the author.)

Valedictory Address to the Graduating Class of the Philadelphia College of Medicine, at the Annual Commencement, March 2, 1859. By J. Aitken Meigs, M.D., &c. (From the author.)

A Paper on the Management of the Shoulders in Examination of the Chest; including a New Physical Sign: Read before the New York Academy of Medicine. By J. W. Corson, M.D., &c. (From the author.)

Ceremonies, &c., New York State Inebriate Asylum.

Report on Moral Insanity in its Relations to Medical Jurisprudence. By D. Meredith Reese, M.D., &c. (From the author.)

Report on the Functions of the Cerebellum. By E. Andrews, M.D. (From the author.)

The Hymen: An Essay, by T. Gaillard Thomas, M.D. (From the author.)

Some Account of the Recent Experiments made in connection with the case of M. Groux. By J. B. Upham, M.D. (From the author.)

THE AMERICAN MEDICAL MONTHLY.

JUNE, 1859.

ESSAYS, MONOGRAPHS, AND CASES.

The Causes of Pulmonary Consumption, and its Treatment by Superficial or Endermic Applications and the Inhalation of the Nutrient Elements of the Blood and Tissues. By H. P. DEWEES, M.D., New York.

(CONCLUDED.)

Every tissue is subject to disintegration. The equilibrium of the system is sustained, by the supply of new material being in proportion to the waste. When the decomposition of the structures overbalances their renewal, the loss of flesh alone is attractive to the non-medical observer. But, to the physician, it becomes significant of an over-accumulation of carbonic acid in the system. The individual is gradually becoming more or less poisoned. For the removal of this carbonic acid, and for the renewal of the consumed oxygen, the lungs are the most efficient organs. In the delicate membrane of the air-cells these changes are effected. But, if superficial impediment, as from obstructive mucus or thickening of the membranes, and consequent diminution of the interior capacity of the cells ensues, the vital interchanges are interrupted, and the whole organism is made to suffer.

The liver, also, aids in the excretion of hydro-carbonaceous matter from the blood. But the bile is not altogether excrementitious, since part of it is destined to be reabsorbed for the further uses of the econ-

omy. It is easy to comprehend from this view, that the arrest of the secretion of bile, not only causes the delay in the blood, of the materials that should have made their exit through the liver; but, also, that the portions which should be re-used for the purposes of assimilation, are not afforded. It behooves us to remember that the so-called inactivity of the liver may not be a sort of paralysis of the organ; but that the amount of materials forced upon it by an imprudent disregard to diet, are too great for its power to eliminate; and this, especially if the lungs are deficient in the acts of respiration.

The popular error of the bile "being something to be got rid of," has, no doubt, provoked many an assault upon the liver, by purgatives and "alteratives," once so fashionable, whilst the so self-inflicted have sunk down, bewailing their misfortunes and their livers.

One of the peculiar offices of the bile is to regulate, through its alkaline action, the *degree* of the acid products of digestion. When duly mixed with the ingested chyme, it prevents chemical changes in the reduced pulp, thereby restricting the too rapid evolution of gas from fermentative decomposition, so troublesome to the dyspeptic. When bile reflows into the stomach, it becomes a source of discomfort, by the power it possesses in retarding the fermentative actions proper to the early digestion. These cases are sometimes troublesome to treat.

Dyspepsia is commonly regarded as a disorder of the stomach alone. But the duodenum, the cœcum, and other portions of the intestinal tract, have their appropriate dyspepsia. The translation of their symptoms can only be made out by the observant practitioner. Too much food for the amount of bile secreted is as injurious as too much bile for the quantity of food. These "weak-livered" people, these windy complainers, these supper-nightmare-invoked dyspeptics, form a large class in society. They are particularly fond of changing their doctors, or of gulping down quack nostrums. The homœopathic globules of moonshine are a Godsend to them. They can be continually taking these sugar nothings not only *without injury*, but with mental benefit. They change everything but their diet. Their skins become pasty yellow with a clammy sweat, or their palms burn whilst the surface is dry. Their clothes begin to hang in festoons; their conversations about their ailings are only interrupted by eructations, or abortive hiccups, whilst their bowels bag down in the protruded walls of the vein-covered abdomen. They are really unhappy in every fibre, and certainly are very uncomfortable companions.

Sometimes "chronic diarrhœa" is established; the bowel surfaces are irritated by the semi-digested acrid particles, producing constant

propulsive efforts. The discharges are generally whitish, offensive, and mixed with portions of the food, but without bile, which in some cases may make its appearance at the close of the strainings. In others, there is an over-quantity of bile with each stool, whilst portions of the food may or may not be discoverable. By repeated irritation, the glands in the duodenum cease to secrete, or else secrete improperly, and thus aid to impair those changes so essential for the renewal of healthy blood. Sometimes constipation attends the withdrawal of biliary secretion, the whole intestinal tract being sluggish.

When the food has been properly emulsified by the combined actions of the bile, pancreatic and enteric juices, the resulting chyle is subjected to the actions of the lacteals or intestinal absorbents. After the absorption by the lacteals has taken place, the alimentary matters are submitted to the internal glandular actions, through which changes are effected to render them assimilable. The substances taken up by the vessels of the stomach and intestinal walls, are subjected to the direct actions of the liver through the portal circulation. Thus it is, that the liver becomes an organ for assimilation as well as for depuration.

The influence of these combined actions over the production of tubercular consumption, is now manifest. The nutrient materials brought by the lacteals, the mesenteric and gastro-intestinal vessels, have to receive certain vito-chemical metamorphoses, that in part prepare them for the purposes of the blood, before entering the general circulatory current.

It is during the passage of the albuminous portions of the chyle through the lacteals, that the incorporative admixture of the oleaginous matters ensues. From this point the perfectioning of the albuminous and fatty particles of the food into "cells," takes place, by which they are rendered capable of assimilation. Without these oleaginous materials, this vital act could not be sustained, and the various nutritive processes would become abortive. Fat has first to *enfilm* the nascent cell, (whose function it is to bear life and regenerate into every portion of the body,) before nerve-vesicle or tissue can be fully developed. It is prompted by nature, that the inhabitant of cold climates shall partake of the gross fatty animal matters, whilst in the warm regions he still seeks those foods which shall yield saccharine matter, and the lighter vegetable oils. The process of enfiling must be carried on even in warm climates; but animal heat in these regions is more easily sustained, and only enough fat matter is required for cell

growth, and the construction of the adipose, nervous, and muscular structures.

If the fatty material be imperfectly supplied for enfilmation; or if the due amount be not *properly incorporated in the cell*, the reproductive energy of the structures becomes weakened or perverted, whilst the door for tissue waste and tuberculous deposits, &c., is opened, and chemical actions, with decay, are unrestricted. The old maxim that "evil communications corrupt good manners" holds good here. Decay begets decay; so leavening the whole, that vital energy has no restrictive barrier against death claiming its victim.

We will now refer more particularly to the transformations observed in the chyle during the vital process of nutrition. During its passage through the mesenteric glands, the resemblance to the blood becomes more apparent by the increase of the fibrin. It is now that the chyle corpuscle is found to be enveloped in a delicate film of oil, whilst the fibrin of which it is chiefly composed progresses towards a higher degree of vitalization. The chyle ingredients exist in different relative proportions, according to their progress from the intestinal walls to the mesenteric glands, and from these to the thoracic duct, or the great channel to the heart for the tissue uses of the economy. The proportion of fat, or oil globules, in the chyle, when passing from the intestines to the mesenteric glands, is great, whilst the albumen is only in a noticeable quantity. The chyle still appears to be a mere emulsion. True chyle corpuscles are yet deficient, and the fibrin has not been evolved. In its passage from the mesenteric glands to the thoracic duct, however, certain distinct changes ensue. The oil globules decrease, albumen exists in its greatest quantity, with vast numbers of chyle corpuscles, though not fully developed. The fibrin is now noticeable, whilst in the thoracic duct the fat in the chyle diminishes with the albumen, and the chyle corpuscles become well developed, and properly enfilmed with oil, with fibrin in great quantity.

It then becomes a matter of vital importance that the food should contain a proper proportion of saccharine, albuminous, and oily elements. Although the first two can be drawn from either vegetable or animal diet, yet the actions of these constituents in the blood differ materially, as seen in the disorders of gout and rheumatism. This difference is very noticeable in many consumptive patients, who, although requiring the due admixture of all the elements above mentioned, yet find by experience that it is not a matter of indifference whether they be supplied from animal or vegetable sources.

Since the conditions of the chyle, as above mentioned, vary greatly

in the different elaborating portions of the system, it requires not only the patient's experience to discover what articles—vegetable or animal—disagree; but, also, the medical man's scientific investigations, to determine *why* they disagree. It is an every-day occurrence to find some consumptives not only averse to oleaginous matters, but with whom these matters are practically found to disagree. Some find that the albuminous constituents of animal food derange their digestions, and fail to nourish, whilst others refuse those from vegetable diet. Still, the principle remains the same—the chyle formations (including the lymph) must be healthfully sustained, that the blood products shall be normal. The generation or renewal of tissue cannot be maintained, without affording to the blood not only the elements necessary for its reproduction, but also the *quality that is in organic harmony* with the structures themselves.

There are many consumptives who, apparently, have never been troubled with dyspepsia; and there are many dyspeptics who have died free from tuberculous disease. Although this is true in some cases, yet it must be remembered, that dyspepsia is but too often regarded as a mere stomach disorder, attended with more or less inconvenience or local pain. But dyspepsia has no exact regional boundaries. Its influence in producing or aiding tuberculous depositions is held within certain limits; the disorder so induced being an index of the blood changes resulting from the dyspepsia. The absence of any of the forms of dyspepsia, however, does not indicate any immunity from tubercle. Its deposition may result from *errors originating in the disturbed elective actions of the tissues themselves*. Tubercle may be thus evolved, and stored up.

Pulmonary consumption is regarded by many as a disease originating within the lungs themselves; but certainly by the profession it cannot be so viewed. The investigations of the blood tend to prove, that the practical starting-point of tuberculous disease of these organs lies in most cases in the imperfection of the digestive functions, and in the want of proper elaboration which the lymph and chyle undergo in the great laboratories of assimilation, viz.: the lacteals, mesenteric vessels and glands, and in the thoracic duct. The anterior disorders of the nervous system are not mentioned here, as they would lead into a discussion beyond our space.

Nor is consumption always to be set down to the ravages from tubercular deposit. We find many lungs on inspection full of cavities, and infiltrated with pus; from the *constitutional* exhaustion of which, death has supervened. Although this condition may be accompanied

with tubercles, here and there scattered through the lung tissue, yet they were comparatively innocent of any highly deleterious influence. It is in these cases that pneumonia, or local inflammation of certain circumscribed portions of the lungs, becomes the parent of so much evil. The portions so deranged in their nutrition break rapidly down, attended more or less by hæmorrhage, and pus-like expectoration, if an exit can be found; or with abscesses of various sizes, if the tubes are occluded. The fever and irregular chills are more early prominent than in true tubercular phthisis, whilst the loss of flesh and strength is due more to the wasting of the lung, and its consequent imperfection in the respiratory changes that should have been afforded the blood, *whereby other organs are depreciated*, from want of proper arterialization, than from any depravity sustained by the blood. Organic blood changes no doubt do take place, but the few scattered tubercles indicate the amount not to have been very serious. It is only by perversion of the normal nutrition of the lungs (in those previously healthy) that pneumonia becomes the parent of gross tubercle. Nor is the seat of the tubercle always the immediate *locale* of the forerunning inflammation. It may be more or less distant.

In other instances, however, a tuberculous exudation seems to be established, and becomes the inciter of pneumonia. The air-cells become choked, and inflammation succeeds in circumscribed portions. These may be near the pleural boundaries, especially towards the upper region of the lungs, or deeper in its substance. When in the first position, pleurisy is of frequent occurrence, the pain persisting a given time, and changing with any subsequent pleuritic disturbance. The risk of perforation, with consequent emphysema of local points, or of making a communication between the bronchial tubes and the pleural cavity, is always to be regarded as contingent. Generally, lymph is exuded on the pleura, and that portion is bound to the ribs by tough bands, or is firmly glued to the opposing surface.

This exhibit of tuberculous material within the air-cells sometimes appears to be an effort of nature to discharge the offensive matter, and, as seen to result in other organs engaged in vicarious excretion, inflammation arises, with consecutive structural changes. But, generally, the blood does not seem to have suffered primarily; a pulmonary catarrh has become more or less chronic, perhaps incident from measles, small-pox, scarlet fever, or other eruptive disease, and attended with a profuse blennorrhagic expectoration, which gradually becomes inspissated into an albumino-fibrinous material, somewhat representing the granular deposit of sthenic pneumonia, and which, by gradual ab-

sorption or drying up of the more watery portions, leaves a soft, cheesy, tuberculous matter. This may be thrown off by degenerating into pus, without increasing renewal, and with returning soundness to the pulmonary tissue; or it may remain within the cells, undergoing further tuberculous addition and degradation, and by its accumulative pressure destroy their walls. In this latter persistence of infiltrative deposits, the blood has probably assumed tubercular genetic changes. Rheumatism, and disease of the heart, which induces bronchial engorgement, are frequent antecedents of this catarrhal tuberculous state, and especially if conjoined to a scrofulous or syphilitic taint, from which the sub-mucous tissues are prone to derangement.

In the young especially, chronicity may not attend—but one tumultuous attack, ushered in with acute pneumonia, may cause the patient to succumb. Not unfrequently, in the chronic cases, the intestinal mucous membrane evidences, by a catarrhal secretion, its participation with the pulmonary disorder.

These cases resemble, but in many points differ from what is commonly called scrofulous consumption, in which the blood itself is the chief source of the disease. The mode of attack is also different. For the most part, in scrofulous phthisis, the disease is hereditary; its antecedents are of long establishment; its incurrence can generally be predicted; its precursors are more or less stealthy, and its cure, if possible, is only to be effected through the blood. In the other form, there need be no scrofulous blood condition. It is spontaneous, and not traceable to any family transmission. Its antecedents for the most part are sudden, or irregular, and it can be traced to some known local cause, such as pneumonia from exposure, &c. Its incurrence is not predicable; and its cure or eradication by topical remedies is more readily effected; the scrofulosis of the blood (if any has been super-induced) being temporary, attributable and alterable; as in general the digestive system has been but little deranged, or is amenable to treatment.

Although pulmonary consumption, in the plurality of cases, appears dependent on the insufficiency or imperfection of the oleaginous elements afforded the blood, yet it cannot be denied that it ensues in many other instances, where the fatty matters are in due quantity at least. In some, fatty liver attends, and the depreciation of adipose substance in the body is not remarkable. The deficiency of sugar, however, is marked.

These cases seem to depend on the surcharging of the blood with albumen, its conversion into fat by the liver, and its averseness to the

necessary metamorphosis into fibrin, by which the young growing tissues are afforded their basis of renewal. The lungs become more or less infiltrated with an albumino-tuberculous matter, whilst the true tissue degenerates, loses its normal character, liquefies into pus, or *becomes atrophied*. The expectoration consists of pus from the dissolved tissues, of the degenerated material of blasted renewal, and the softened tuberculous matter. The destruction of the lung is a steady process of disintegration. Persons affected with this form of consumption keep up a certain rotundity of outline, their muscles are weak and uncontractile, they are loosely put together, and in general they have a doughy look, although some retain their color in a most remarkable manner.

In the light or red haired, the superficial vessels of the integument and of the bronchial membranes are near the surface; they oxydize, as it were, more rapidly. Breaches of continuity easily take place; or rupture of vessels is easily induced by violent coughing or exertion. Hæmorrhage does not appear to injure, and in many it seems to afford relief. Being more sudden and profuse, the blood is apt to be thrown immediately off, the gravitation and the plugging up of the air-cells, by its clotting, being less frequent than in the dark-haired, torpid, and swarthy-complexioned. In these the *bronchial* tuberculous disturbance is greater. But the vessels do not lie so near the surface, and hæmorrhage is less frequent, whilst the nervous erythism is less active. As a general thing, they are more averse to cod-liver oil, or fat in any shape, preferring well-done meats, without gravies. The albuminous elements of the blood are not only defective in quality, but appear to be in too great quantity. The liver becomes fatty, with atrophy of its true tissue. This condition, however, belongs more to the general tuberculous dyscrasia, than to isolated pulmonary degradation. Fibrin is deficient for the purposes of re-formation of tissue.

We above stated, that fat possessed the property of rendering the digestion of the albuminous materials of the food more easy. But in the cases just cited, there is an over-introduction of albumen into the blood, and fat is instinctively avoided by the individual. The liver, it would seem, labored in the withdrawal of the excess of albumen, either by converting it into fat, or its proper tissue degenerates and atrophizes, whilst the albumino-fat is deposited, at the expense of its true tissue, and the sugar is reduced in quantity, for the combustion in the lung. The waste in these cases must be great, as the oxygen of the air consumes the tissue. Sometimes the conversion of albuminous

compounds into excess of sugar (independent of its production from any other source) intervenes, and the kidneys are called on, producing the diabetic condition, so frequently found alternating, or coincidental with pulmonary tuberculous disease. At times the insipid form of diabetes may be owing to the derangement, or over-introduction of albuminous materials into the blood. It must not be forgotten, that these elements going to the liver, are not the *perfected* ones existing in the blood. Certain changes have to be effected, and the *integrity* of the functions of this important organ is essential, not merely in the necessary elimination of the bile, but in the *vitalizing* property afforded the albumen, which is the true *pabulum* of the tissues.

Two conditions, at least, are necessary for normal reproduction, viz.: 1st. Purity of the blood, containing the *pabulum* of the structures; and 2nd. Integrity of elective action in the tissues to be reconstructed. Hence, unsoundness of organs may arise from a depraved state of the blood; and on the other hand, the blood may be changed from the healthy condition, by derangements originating in an organ itself. In this latter manner, disease may be engrafted on other, or distant portions, the destructive tendency being measured by the vital importance of the part secondarily affected. The changes that a diseased organ forces upon the blood have not been sufficiently studied. The so-called complications are generally viewed as being dependent on the same conditions that originated the attack. But this is not always true, as these complications differ in their exhibition, when the parts so included receive a similar impress from the exciting cause. Every healthy organ has to withdraw from the blood the elements of its own structure. It is not to be supposed that the blood, after it has nourished the kidneys, for example, is in the same vito-chemical condition as after it has performed the same assimilative function in the brain. The *non-extraction*, then, or the *undue withdrawal*, from the blood of its elements must derange its composition, by interfering more or less with every functional process. In addition to this, the mal-secretions tend to engender further depravities. Of these facts the physician should never lose sight. The original disease, or disorder, is to be discovered first, and then treated; the functional complications will take care of themselves, or be of easy regulation. This metamorphosing of the retained elements, which should have been otherwise appropriated, is a frequent source of disease. Albuminuria, diabetes, fatty degeneration of organs, tuberculous encroachments, &c., &c., are instances of this want of organic equilibrium.

The derangements of the nerves of organic life—the mechanics of the body—come in for a large share in the production of disease. There may be a morbid excess in the nervous action, by which more material is invited to the parts than can be worked off, producing interstitial hypertrophy, or changes of the nutrient exudations into abnormal products, or into infiltrations, which pass through various grades of degeneration down to pus, may ensue, whilst the natural tissue undergoes the atrophic process. At other times, however, the so invited elements do not undergo any inferior metamorphosis, but they are comodeled into true tissue, giving rise to “fibrillar hypertrophy,” attended with exaggeration of function proper to the part.

This condition is seen in true fibrillar hypertrophy of the heart, where the impulse at the wrist, in many cases, fails to record the actual state of the system. The pulse is strong, may be frequent, from the increased irritability, whilst the general system is below par. The treatment, to be successful in these cases, must recognize these opposing states. Sedatives, topically applied, will serve to quell the heart’s tumult, whilst tonics and nourishing diet are to be taken, to sustain the working powers of other organs, whose functions are essential to the life of the individual.

Lastly, a third condition may arise from these derangements of organic nerves. The normal tissue may be converted into false structure. It may be innocent as regards its influence; the disturbances created being more of impediment, than of vitiated function. Or, there may arise growths malignant to the surrounding parts and to life, the blood receiving those changes which are destructive to its integrity, and to the continued health of the different organs. The hypertrophies, dependent on dilated vascular supply, are sometimes consecutive to the increased organic nervous demand.

From these views, it would appear that consumption may be generated by errors of the nervous system, directly, or indirectly, affecting the harmonious co-relations of the blood and tissues. It certainly has followed from fright, from mental depression; from injuries embracing both, independent of any depravity that may arise from absorptions and disintegrating reactions of pus, or from obstructed nutrition, owing to the plugging up of the minute nutrient vessels by fibrin, or portions of detached fibrinous concretions, &c. How often has it followed grief, or unrequited love, or any unreconcilable disappointment, without apparent hindrance in its course of dissolution; unamenable to remedy, to change of climate, and apparently without much appreciable depravity of the blood! The moral causes being

persistent, the changes resulting to the local nervous system are also persistent; and thus structural alterations and refusals go on. They who have endeavored "to minister to a mind diseased," know the difficulty.

Accompanying pulmonary phthisis, and aiding its rapidity and its exhaustive progress, consumption of the bowels stands prominently forward. The tuberculous ulcers may attack the ileum and colon, or they may extend upward to the stomach. The mesenteric glands become more or less tuberculous, and in many instances amongst children, (especially among the mulattoes,) these and other abdominal glands are completely ravaged by tubercular deposits. Thick, viscid discharges ensue from the whole mucous intestinal tract, and the acute softening is so great and sudden, especially in the stomach, that in one or two cases falling under my notice, suspicion of poisoning has been raised. If the disease continues for any length of time, the heart becomes changed in structure or size; dilatation, with general venous engorgement, may ensue, or the cavities may lessen, and be proportioned to the general deficit of blood in the whole system. At times, from the uncontractile condition of the right side of the heart, the venous accumulation is so excessive, that the frontal veins start like whip-cords, on the surface; whilst serous effusion pours into the ventricles of the brain, followed by more or less strabismus. Or other errors of motion or of sensation ensue, their permanency depending on the heart's condition and its capacity to react; or on the structural changes of the brain, softening of its substance not being an uncommon attendant. The colliquative diarrhœa, so frequent an attendant on the latter stages of consumption, is not always to be regarded as the *cause* of the rapid waste of strength, and lowering of the resisting power of the patient. Many times the diarrhœa is the mere index that waste *has* taken place. It tells that the organic forces of the system are too rapidly expending; that a species of putrescence has commenced in the structures, and in their albuminous supplies, which should have had vital resistance to perform their part longer; it proclaims too truly, that the breach is greater than the repair, and that the bridge of life is trembling and crumbling under the hastening footsteps of the self-armed soldiers of death. If these panic-bearers, these debauched partisans in the ranks of life, find no discharge, the contagion of their retention increases, and all resistance is broken down. Thus it is that the diarrhœa, so dreaded in phthisis, may become preservative under proper management.

Nor are "chronic diarrhœas," at times, to be viewed in any other

light. They may be preservative, although they may be exhausting; but exhaustion is better than death. The over-rapid waste of decaying structures must find an exit, if possible. The proper intestinal glands are called upon for excretive function. The hand of God placed these glands in their proper place, and endowed them with their depurating power; yet, His writing is ignored by some of the late fatuists in medicine; and the pent-up impurities from tissues, whose type-life has been spent, are allowed to collect in the blood, poisoning the very founts of recuperative effort.

From these views, a philosophy in treatment can be garnered. The *real* efficiency of remedies is to be seen. Astringents, as tannin, catechu, kino, &c., act by their chemico-mechanical properties of constricting the glandular exits. The propriety of their administration depends whether the irritation of these organs establish the severe drain on the system, or whether these glands perform their legitimate functions, in giving exit to these poisonous products of internal tissue waste. And the cause of the waste itself is also to be considered. It may be from the too rapid exercise of the reproductive forces, loading the blood with the debris of portions no longer useful, (and this is very rare;) or, it may result from their inefficiency, whereby the blood becomes surcharged with the blasted cells of abortive renewal. And this latter condition is frequent. Then, kino, nor tannin, nor any other astringent, is needed; but those remedies having organic, restraining, or supporting properties, are to be depended on. Not with the view of arresting the diarrhœa itself, but of *retarding the necessity* for tissue supply, and affording time proportionate to the inactivity of the remodeling power. Hence, opium does not act by any property of astringency in these cases; but through its organic, restrictive, or paralyzing power, by which the reproductive interchanges are modified. The same may be said of sugar of lead; it is an organic paralyzer, independent of its chemical action over the fluids.

Space is not given for further illustrations of these philosophies of treatment; the hint is sufficient. It is only through similar views that the obstructed streams of medicine can be permanently opened into the sea of science. Whenever this takes place, even the adventurous empiricist will be borne more safely upon the tide that sweeps through the true channel. The present disgraceful bandying of "pathies," whether Homœopathy, or its so-nicknamed Allopathy, will not serve to arm men—(and some of them really clever men on both sides)—against each other, to the detriment of their self-respect, of science, and of their patients particularly. These contentings must sooner

or later be harmonized, under the one flag of "rationalistic" medicine. Truth is gained by the study of nature, and not by creating a primer for her, with fables which have their sole foundation in imagination, and their belief in infancy or ignorance.

It may not be out of place to mention, that some forms of diarrhœa (more or less chronic) depend upon malarial poisoning of the blood, or perhaps more truly, of the nervous centres. The organic forces become deranged, and the blood is surcharged with the products of decomposition, or of retardation, to a vast amount. Diarrhœa becomes significant of the fact merely, but is not the disease. The amount of the poison is so great, or its power to impress the nervous system so violent and prostrative, that the blood may be arrested in its *own* renewals, or the structures may be lowered in their power to assimilate their normal constituents. Pallor, loss of flesh, and diarrhœa evidence these conditions, the latter being frequently preservative; or if not attending, life may be paralyzed in the cold grasp of death, with symptoms of uræmic or other blood-poisoning, from the retention of so much animal impurity. Although opium may retard tissue waste, or sugar of lead act in its twofold capacity of restraining organic activity, and constringing the outlets, still the zymotic cause has to be recognized; and quinine, chinoidine, and even arsenic, &c., have to be conjoined to effect a cure. Here the endermic application of these remedies over the spinal tract will serve most important ends. In almost all of these cases, the elaboration of albumen is excessive or imperfect: early decay is impregnated with it, and the tissues so formed have their early type-limit impressed on them. They soon decay, loading to excess the overburdened blood. Cannot the value of the peculiar properties of arsenic, of bichloride of mercury, and other remedies of this class, be seen; when their influence in *rendering the albumen less impressible*, and probably the evolution fibrin more perfect, is daily witnessed, not only in the living, but also in the dead structures? Do not certain surgeons practically find the value of these remedies, and style them, in minute doses, as tonics, in the leuco-phlegmatic or albumino-scrofulous? Is not the reason plain? And thus it is that, in proper cases, arsenic in minute doses becomes a life-giver; whilst in larger doses it is a destroyer, whose footsteps may be rapid or slow, and against whom the very tissues themselves are preserved as witnesses! It may open the door to death, but keeps back its dismal companion, decay.

We have already overrun our allotted space; but as the object of this paper was not to rehash views already promulgated, nor to re-

copy treatments tried, and found useful or useless, we have dilated on the physiological and pathological positions necessary to establish the grounds for a somewhat novel and apparently more rational application of remedial measures. It would seem reasonable that the internal administration of drugs has but a doubtful chance of reaching the ends desired, when the disturbances of the digestive organs are so great. The return to sound action in them must necessarily consume time, and time is not to be lost as regards the changes progressing in the chest. These are to be modified by such *direct* means as lie within our power—not through the route of the stomach and intestines—but through their superficies, and by local absorptional application to the laryngeal and bronchial membranes themselves.

When the errors of assimilation are either not great, or are those of impediment more than of destructive impairment, then the internal administration of remedial measures may be trustily conjoined. Many times the difficulties of the digestive organs are engrafted on deficiencies of arterialization from a disturbed condition of the lungs; and these cases certainly are not to be remedied by measures directed to the stomach, liver, or bowels. The defects within the chest are to be locally attended to, and the gastro-intestinal membranes are to be *kept for the purposes of nourishment*, and not for those of medication. Their restitution progresses with the benefits accruing in the lungs.

The same is seen in the easily examined disorders of the larynx and pharynx. Follicular depravities take place, and although they might be associated with disturbed gastric functions, still, the influence of the diseased secretions poured out by these glands upon the gastric membrane, or on the gastric juice, is such, that healthy digestion is destroyed, and the consecutive derangements arising from this induced condition are but too frequently viewed as the causes of the subjective disorder. But the fallacy of such a view is to be exposed, by the return to health being effected by topical medication to the diseased surfaces, without a drop of medicine being swallowed. The cases of the so-called consumption of the larynx, for the most part, commence in this way. In the previously healthy, tubercle may result from these digestive depreciations. In the scrofulous or blood disordered, the proclivity to its exhibition is hastened. The depositions of tubercle are within the lung, rarely in the larynx, although tuberculous degeneration may ensue in the small bronchial tubes.

Some of the most aggravated cases of dyspepsia falling under my care have been entirely recovered by topical application to the throat surfaces. The ulcerations of the bronchial and exposed

lung tissues are likewise amenable to local treatments, and their vast superficial expansion is to be employed for remedial purposes. Blood changes, diseases, nervous impressibilities, whether sedative or stimulant, are daily witnessed from the inhalation of zymotic vapors, mephitic or anæsthetic gases; whilst the pure air of the prairie, or the chlorinated breezes from the sea, find their life-invigorating powers through the extended surfaces of respiration. An outward ulcer may be cured by internal administration of blood alteratives, when dependent on a constitutional affection; but a simple ulcer, originating by accident, or from some local imperfection of the remodeling process, is readily healed by direct application. You may attract the attention of a patient by internal remedies, but you cure the ulcer by local applications.

The analysis of the tissue of the lung differs somewhat from that of muscle, inasmuch, that it affords oleic and margarine acids free and in combination with soda, and cerebrie, or oleo-phosphoric acid, with a notable amount of cholesterine. The analysis of tubercle resembles that afforded by the parenchyma of the lung, excepting certain differences of proportion in the component principles. Chloride of sodium particularly is in excess in tuberculous matter, whilst the phosphate of lime is much smaller, (that is, in unchanged tubercle.) The amount of cholesterine by weight in tubercle is at least ten times greater than in healthy lung tissue. It is somewhat singular that an excess of this product should be found in so many grave diseases. Whether this substance, so rich in calorifiant principles—carbon and hydrogen—forms a cause of the deposition of tubercle, or whether it is merely retained, and accumulates by disengagement, from the blood supplying it normally to the tissues that have wasted or been metamorphosed, cannot now be discussed. It is worthy of remark, however, that this remarkable substance is also found in large excess in fatty liver, the so frequent attendant of pulmonary consumption. It mostly presents itself whenever oxygenation is deficient. But whether it collects because of the loss of the normal supply of oxygen, or whether it abounds in undue amount in the blood, even if the quantity of oxygen is normally afforded, are questions for further investigation. Generally, it is indicative of waste of brain and nerve tissue.

The analysis of tubercle differs in itself, according to its state, but not according to its situation. Certain modifications ensue between crude, cheesy, softened, and concreting tubercles. In crude tubercle, according to Boudet, the casein exists chiefly in an insoluble state, whilst in softened tubercle the casein is soluble from the developed alkali. In fatty

liver the saponifiable fats may be found twenty times greater in quantity than in the sound state, whilst the natural tissue falls to one-half its normal weight, attended with an enormous excess of cholesterine.

The length of this paper has already extended beyond the limits allowed. The physiological and pathological conditions have been sufficiently dwelt upon to indicate not only the basis of treatments, but the causes for the inadequacy so generally attending the administration of remedies. I have now only space to call the attention of the profession to those rational views as regards the eradication of the tuberculous dyscrasia, and the process of affording to the diseased lung those *nutrient elements which constitute their tissue in health, and which are defective or deficient in tubercular ravages*. These desired results are to be effected by internal administration through the digestive organs, and by inhalation, or direct absorption, or contact of the remedial and nutrient substances by the mucous membrane of the larynx and bronchial tubes, in conjunction with applications to the surface of the chest and abdomen. Nor are the nutrient elements alone to be afforded by direct inhalation; but those volatile remedial substances can be applied to the affected surfaces, together with liquid preparations gradually introduced within the cavity of the larynx, after tolerance has been established. The value attached to many fatty ointments is owing, in many instances, to the absolute nourishment afforded to the diseased surfaces, as the preparations mingled with the oily substances are sometimes inert or not absorbed. The exclusion of air from the surface of course has to be taken into consideration. Glycerine, independent of any other influence, becomes a valuable nutrient application to the ulcerous parts. Through frictional applications of nutrient substances, to the surface of the chest and abdomen, life has been supported in many exhausting diseases; and also, where there has been structural impediment to internal digestion. Cod-liver oil, diligently rubbed in, has proved in my hands, and in others, a most reliable method of support, and a means of affording to the blood and tissues the oleaginous materials so imperatively demanded in diseases of the lungs, mesenteric glands, &c. The stomach may have refused the administration of oils, or, from duodenal derangements, their absorption by the lacteals could not be attained, whereby the *enfiling* of the chyle corpuscle was arrested or rendered imperfect. In such cases the endermic method must be adopted, and will generally be found beneficial. By the direct inhalatory application of the volatile fatty matters, the exudative depositions of albumino-tuberculous matter within the air-cells are rendered in a condition more ready to be reabsorbed, or assimilated. By the vehicle of vapor, or

of spray, the substances entering not only into the composition of the lung and tissues of the blood, can be directly applied, but those preparations having a specific remedial purpose can be introduced. A great desideratum is also obtained by these methods—the stomach and whole intestinal tract is reserved for nutriment, and not deranged by uncertain medication. At all events, the internal administration of remedial agents can be lessened to tolerance, when the digestive organs are themselves disordered; whilst their labor for self-restoration is not impeded, or so much impaired, and the affected lung tissues lose no time in their acts of recuperation.

Climate-change for the consumptive has killed as many as it has cured. “To the South,” has been the watchword cry. But the South is not all sunny and balmy. It, too, has its bleak, dry, or damp alternations. It has its oppressive days and its fitful night changes. Caution is lost sight of by the hoping patient. He is in the South, and what need is there for prudence? He leaves comforts in exchange for the mere necessities of life; and is forced upon greater restriction as regards diet, excepting, perhaps, that of fruits. The social relations of home are broken up, or interfered with. There is more necessity for exertion, although indulgence is sought after; and though more rest may be obtained, there is less repose. Besides these drawbacks, there is an everlasting consciousness that he is there for health. From night till morning his cough and his complainings are re-echoed from some adjoining room or house, or reiterated by his like afflicted neighbor. For bronchitic cases, *where the nervous tension is too high*, the change to a warm climate will prove beneficial; but for the opposite conditions of relaxation and anæmic respiration, the rarefied and warmer air adds to the distress. There is a difference, also, as regards the wastage of moisture by the lung. Some exhale an enormous amount of vapor, whilst others throw off but little. In the former a warm, moist climate would serve to arrest the exhalation, whilst a dry, cold climate must tend to increase it. In the latter, the opposite results obtain. From practical experience, this difference between dry or moist atmosphere is known by the patient; and if not known, it can readily be made manifest, by experiment. As a general rule, I am more in the habit of advising tuberculous patients, requiring change, to seek a dry, uniform, northern climate, and especially if they require or find oleaginous substances to agree with them. In the southern latitudes, these oil matters, so essential with many, do not agree so well. The respiration is less frequent and deep; the relaxation extends to the remodeling process, and although the decay of

tissue may be retarded, yet the *rebuilding* of healthy structure does not progress. Even *cream*, which stands next to cod-liver oil as a tissue regenerator, cannot be well borne. With these, the warm vapors from the sugar-house agree best. *Their application is direct to the bronchial surfaces.* Many incur chills, and these are laid at the door of malarial infection. But, in reality, the chills are more often the precursors or attendants of tubercular softening, or of progressive structural declension. The table-lands of Mexico probably form the most healthful resort for the consumptive.

Remedies that restrain tissue waste, by affording to the inspired oxygen, carbon, hydrogen, or nitrogen, are valuable auxiliaries in the eradication or cure of tubercular phthisis. Hence tea, coffee, cream, &c., find advocates for their use. Other remedies, as arsenic, corrosive sublimate, creosote, naphtha, &c., that have the property of impressing upon albumen and its compounds a state of resistance to abnormal decay, become, in skillful hands, powerful abettors in restraining waste, and in promoting recuperative repair of tissue. Opium has also its place; its abuse should suggest its use. It becomes, under scientific direction, a boon, and not a bane. Its power to control the *necessity* for tissue supply, by restraining the activity of the assimilative processes; its stimulant effect, in certain doses, over the nerves of organic life; its secondary actions in producing cerebral congestion, by which not only the due pressure is maintained within the brain, when needed from anæmia, but by which rest may be obtained for its wearied functions;—these, and other benefits, give to opium a place of trust in the hands of the skilled rationalistic physician, unequaled by any other drug, but which are daily abused by ignorant empiricists, or the routine practitioner. Alcohol, in shape of brandy, rum, or whiskey, has its uses; the lungs of tuberculous drunkards proclaim in favor of its use, but not of its abuse. Both free carbon and hydrogen are afforded, in place of the elements of the wasting tissues being consumed by the inspired oxygen; whilst the albumen compounds are rendered less liable to premature putrescence. Whiskey from corn, or the Bourbon whiskey, is decidedly the best form of remedial supply, the contained fusil oil having a beneficial influence. Wines, containing a due proportion of alcohol, with phosphoric matter combined with lime, potash, &c., are also vehicles of support and recuperation; and especially during the disposition to the calcareous metamorphosis of tubercle, in which the phosphate and carbonate of lime, with more or less silex, and oxide of iron, play so notable a part. Certain spring waters, holding in solution the above elements,

as the Lebanon Spring water, have been found beneficial in this condition. Their inhalation will serve a better purpose towards local assimilation. The soluble salts, as the chloride of sodium, phosphate and sulphate of soda, are also portions of these concretions. The incineration of tubercle, on analysis, corresponds remarkably with that of the concretions.

The object of this paper is not to rehearse treatments already tried. Their road is known, and too well beaten. But it is to direct attention to a path whose windings have been only partially explored; and to explain, on the basis of rational science, the indications for remedial action, and to classify the agents with the ends desired—the how and the wherefore of modern therapeutics. We have not, then, redressed the meagre skeletons of wasted treatments, and flaunted them under their dominos before the world, nor embodied those palliatives so familiar to the profession, and so daily employed by the people. But the object has been to disrobe that scourge “to one-third of mankind” of its artificial terrors and its mysteries, that it should stand naked before all, that its make and proportions should be known. To do this, its footsteps of stealthy approach had to be traced through all the great avenues of life. Its dwelling-house within the chest had to be entered, where the robberies of the blood were deposited; or where, invited by other evil companions, it left the proceeds of its ravages, amidst the wreck of all that once was sound, but now tenanted by wasteful marauders. It has been shown that Life, sitting on its throne of harmonious organic relation, could find itself quietly or quickly undermined by the sappers, which might deposit their grains of destruction, or boldly issue forth, and cut off supply after supply, till the white flag of starvation was the only one of peace. It was also shown, that not through the broad conduits of renewal alone was this demon of human destruction to be tracked; but that, through the electric influences of the nervous system, impressions were conveyed, which caused the grief-bowed to bend yet more, or else made purity a battening residence of a vicious spirit, which left naught but blighted remains to tell of its vampire course.

From all this degradation a practical moral arose. It taught that early principles should be attended to; that the very organic alphabet in the mouth should be watched, lest an early error should ensue. How changes may be engrafted here and there, in the various passages of life, and the “cell” whose office it is to bear renewal and similitude to every portion of the body, should enfilm itself with delicate oil, that the lamp of life might be replenished, dispensing heat and re-

newed invitation to the chambers of the chest. It told how nature craved supply from the outer world, when the blood could not fulfill its function.

In summing up, we find:

1. That pulmonary consumption may be a disease originating in the blood; or in the tissue of the lung itself; or from deranged nervous actions.

2. That tubercle is a product, the witness of blasted "cell growth," originating from the imperfection of the nutrient materials; or from a disturbed elective action inherent to the tissues themselves.

3. That ravages similar to those effected by the pressure and offence of tubercle, may ensue, without being caused by the evolution of, although attended with, tubercle, in portions more or less distant.

4. That structural changes arise from the abnormal influences of the nervous system.

5. That in some phthisis is hereditary, and in others is self-induced.

6. That it may waste every fat-cell, without great attendant loss of strength; whilst at other times, fat is not so entirely consumed, as muscular fibre is degenerated, and rendered less contractile.

7. That it accompanies or alternates with fatty degeneration of the liver, and of other organs.

8. That it may be incurrent with albuminuria, diabetes, or that the eruptive diseases may be its developing point.

9. That pregnancy may afford a certain arrest in its progressive ravages; or, by increasing the albuminous composition of the blood, the liability to certain tuberculous dyscrasia might be rendered greater.

10. That the "colliquative" diarrhoea, attending tubercular phthisis, may be preservative.

11. That the enfiling with oil of the true chyle corpuscle is a most important step towards future assimilation.

12. That follicular laryngeal disease may be at the bottom of tubercular degenerations and disorders of the digestive system.

13. That the pulmonary and skin surfaces afford a vast channel for remedial application and nutrient supply.

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On the Formation of an Artificial Anus. By C. TH. MEIER, M.D., Surgeon to Bellevue Hospital.

[Read before the N. Y. Medico-Chirurgical College.]

On the 20th October, 1856, I saw, with Dr. Grevel, a male child born with an imperforate anus 48 hours before; the child was other-

wise well formed, but delicate and weak. On close examination, the whole pelvis was found to be very small. The space between the tubera ischii narrow, penis and scrotum in a position more backward than usual. A small dark-colored line ran from the scrotum towards that portion of the perineum where the normal anus should be found, but not the slightest trace of this opening could be detected. The finger could be pressed high up without much resistance, the whole perineum yielding. The child had, according to the statement of the parents, passed natural urine. Although I urged that the operation should be made immediately, I had to put it off till the next morning, on account of the unwillingness of the parents.

21st.—I again saw the child with Dr. Grevel. Abdomen very tympanitic; the child cried continually; the perineum remained still unchanged, without resistance on pressure. It was now agreed to perform the operation for establishing an artificial anus in the perineum. The child was laid on a table, and a small silver catheter introduced into the bladder. No urine came out, although afterwards, during the progress of the operation, the finger could detect the presence of the instrument in the bladder. I then made a longitudinal incision from the scrotum to the os coccygis, which projected forward more than usual, cut through a layer of transversely running muscular fibres, and finally, through the pelvic fascia, always guided by the catheter in the bladder. In this way I penetrated to the depth of an inch and a half, without discovering the intestine. In proceeding further up, I made use only of the forefinger, the director or the handle of the scalpel, and kept near the os sacrum. At length I reached the promontorium, and could feel the end of my forefinger through the abdominal walls, as often as I pushed it forward above the pubis. Near the promontorium there was a soft body, which became resistant upon pressure over the abdomen. I took this body for the *cul-de-sac* of the intestine. Introducing an exploring trocar, nothing escaped through the canula, but after withdrawing the instrument a little meconium was detected at its point. Introducing the ordinary trocar for hydrocele, there followed a discharge of gas and meconium; injected warm water through the canula, which produced a discharge of a great deal of meconium, followed by a discharge of a liquid of a straw color, which had all the appearance of urine.

I renewed the injection of tepid water in the intestine, which was always followed by a discharge of meconium. I then introduced the forefinger, separated the intestine by the aid of the director from the promontorium and the posterior wall of the bladder, inserted two fine

and long double hooks in the gut, and proceeded by cautious traction to draw the intestine through the pelvis down to the perineum. Here I made an incision in the gut between the two hooks three-quarters of an inch in length, and by means of eight interrupted sutures united the borders of the incision of the intestine with the wound in the perineum, thus having completed the formation of an artificial anus at its normal place.

During the operation the child appeared at the point of death, but immediately after the discharge of meconium the abdomen became soft, and the little patient seemed to feel very easy.

22d.—Abdomen again tympanitic, although a sufficient defecation had taken place. The child discharges a clear urine, in a natural stream. Injection of tepid water into the intestine through a female catheter. Inflammatory reaction at the perineal wound.

23d.—No motion of the bowels. Injection of tepid water into the intestines through a gum-elastic catheter; discharge of light-colored fæces afterwards.

24th.—Pulse very feeble; the child cries continually, takes no nourishment; face sunken; abdomen very tympanitic; no motion of the bowels since yesterday. Discharge of urine through the urethra, then discharge of urine, dark-colored, from admixture with fæcal matter; gas escaped through the urethra; perineal wound less inflamed; sutures begin to loosen.

25th.—Child died at three o'clock, A. M. At our visit we found the diapers soiled with fæcal matter.

Post mortem examination refused.

There are many points of interest in this case.

1. There was not only an occlusion of the anus, but the whole rectum was wanting, and the *cul-de-sac* of the intestine was obviously formed by the termination of the sigmoid flexure.

2. There was evidently a free communication of the intestine with the bladder, since, after the formation of the perineal anus, a great portion of the fæcal matter found its way through the urethra, and afterwards urine came out through the urethra, mixed with fæcal matter.

3. The fact that muscular fibres were met with during the operation appears of great importance, since many surgeons are of the opinion that, in imperforate anus, where the rectum or the lower portion does not exist, the muscles also connected with it, as the levator ani and the sphincter, are deficient. If ever, in cases of deficiency of the rectum, the existence of the perineal muscles is a well-established fact,

the great advantage of the operation in the perineal region over that in the inguinal or lumbar region will in this respect be evident, as the functions of the artificial anus by means of the above-mentioned muscles will be more easily performed.

4. The perineum was found without resistance and yielding to the finger, the pelvis comparatively small, particularly in its antero-posterior diameter, the tubera ischii approaching each other more than usual. This observation in such cases of deficiency of the rectum has already been made by Rokitansky, and is therefore of great moment in regard to the diagnosis, as, under such circumstances, the surgeon must be prepared to meet with a deficiency of the whole rectum, or a portion of it.

5. The situation of the rectum as high up as the promontorium is unusual, and the possibility of drawing down the intestine such a distance, about three inches from the promontorium, was perhaps never before attempted. In the two cases of Amussat and Friedberg, where a similar operation was performed, the intestine was found at a distance of two inches.

Before entering into the details of the operation, I may be permitted to give a brief outline of the different pathological conditions met with in cases of imperforate anus:

1. Simple membranous occlusion of the anus.
2. The rectum, instead of opening at its natural situation, terminates with a small opening at another portion of the perineum, the scrotum, or the penis, at the sacral or the hypogastric region.
3. There is a natural anus, as a *cul-de-sac*, but separated from the rectum, and without communication with the intestine.
4. There is a deficiency of the whole rectum, or a portion of it. The rectum does not descend down as far as the perineum. In these cases we sometimes find an abnormal communication of the intestine with the urethra, bladder, or vagina.*

In regard to the operation to be performed in imperforate anus, I will omit here the simple proceedings necessary when there is simply membranous or cutaneous occlusion of the anus. But it is of more importance to consider those cases where the rectum or a portion of it is wanting, and where the *cul-de-sac* of the intestine terminates at a distance from the natural situation of the anus in the perineum. In these cases, which are not of very rare occurrence, most surgeons advise to make a longitudinal or crucial incision at the perineum, then to advance

* Von Ammon. Die augebornen chirurgischen Krankheiten des Menschen. Berlin, 1842.

Cruvelhier. Anatomie pathologie.

gradually with the knife to a depth of an inch and a half, or at most, two inches. If fluctuation can then be felt, the bistoury or a trocar is to be introduced, and the meconium removed; if not, the advice is to try dilatation by compressed sponge, to wait ten or twelve hours, and then to examine for fluctuation. In many cases, when the surgeon looks in vain for fluctuation, he is directed by authors to thrust the knife or trocar up to the sacral region, in the direction of the rectum. Should he fail to detect fluctuation or to open the intestine, another operation for establishing an artificial anus in the hypogastric or lumbar region is to be resorted to. This is generally the proceeding to which surgeons resort in regard to this very important congenital malformation, with the exception of M. J. Z. Amussat, who first gave the description of a successful operation for artificial anus in a newborn child, entirely different from the usual operation, and in many of the principal points similar to the proceeding which I have described.*

Let us see, first, what advantage we can expect from the above-mentioned operation. Let us examine whether those proceedings to open the rectum for the discharge of the meconium are sufficient.

In the first place; if at a certain distance the rectum is not found, and fluctuation is not detected, the trocar is pushed in in the direction of the rectum, it is by mere chance that it reaches it, and we are exposed to the danger of wounding the bladder or other organs.

If, on the other hand, the rectum be detected at the distance of one or two inches, and the trocar or bistoury be inserted, the meconium will pass out, but the fæcal matter will always afterwards come in contact with the surrounding tissues, and produce irritation and fatal consequences. The incision made in the intestine will also soon contract, and require constant dilatation. In fact, most all of the children operated upon in this manner die. Amussat, in a paper read before the Institut in 1835, recommended a different method for establishing an artificial anus, in which he had been successful. A child operated upon by this plan was still alive in 1855. The method he recommended was to make a kind of T incision in the perineal region, then to dissect the cellular tissue and the pelvic fascia until he reached the intestine; he then brought it down to the perineum, opened the rectum, and after the discharge of the meconium, attached the mucous membrane of the intestine to the borders of the perineal incision by

* Observation sur une opération d'anús artificiel pratiquée avec succès par un nouveau procédé, par M. Amussat. Lue à l'Institut dans la Séance du 2 Novembre, 1835.

means of interrupted sutures. In 1855, Dr. Friedberg, a surgeon in Berlin, published a case of imperforate anus operated upon successfully by a proceeding similar to that of Amussat.

In my case, differing from that of Amussat and Friedberg in regard to the great distance of the intestine, i. e., nearly three inches from the perineal wound, I followed in the operation the same principles laid down in Amussat's method, with some modifications, in regard to the incisions. Yet the case was not successful in its final result, not only on account of the great distance at which the intestine was situated from the perineum, but also, doubtless, on account of the free communication of the intestine with the bladder. These cases always terminate fatally.

Operation.—After the introduction of a small silver catheter, to be kept in the bladder as a guide during the operation, and, in female infants, of a good-sized probe in the vagina, a sufficiently long longitudinal incision is to be made in the median line of the perineum, beginning at the posterior portion of the scrotum; or, in female infants, behind the posterior commissure, and terminating at the os coccygis.* Then the incision is to be continued through the cellular tissue and the perineal muscles. The pelvic fascia is then incised; the finger and the handle of the scalpel will then be sufficient to clear the way along the os sacrum to the promontory. If the *cul-de-sac* is not discovered at its normal situation in the concavity of the os sacrum, we are then able to carry the finger in every direction, for the purpose of exploring the whole pelvis, and, aided by the catheter and pressure over the abdomen, to discover with certainty the fluctuation of the lower portion of the intestine, if it should happen that it is situated at some point of the anterior or any other portion of the pelvis, provided it has entered the pelvis at all. Should there still exist in the mind of the surgeon a doubt in regard to the fluctuation, the exploring trocar can be used. Being assured that he has discovered the *cul-de-sac* of the lower portion of the intestine, he begins to disengage it from cellular adhesions, mostly by means of his fingers, if it is high up; or he can use a pair of scissors or a scalpel, if it is not very distant. This being accomplished, he inserts two fine double hooks in the intestine, and draws it, or that portion of it that yields easiest, gradually down, separates it again from cellular or fibrous

* The T incision recommended by Amussat gives no more room than a long longitudinal one, and injures the perineal muscles, so necessary for the subsequent functions of the anus. In some cases, Amussat even removes a portion of the os coccygis. This is not necessary, as this bone is very movable.

adhesions, if necessary, until the intestine appears at the perineal wound; taking care to make the traction more on the posterior than anterior wall of the *cul-de-sac*. An incision of about three-fourths of an inch is then made in the intestine, between the two little hooks, the meconium is permitted to escape, and the mucous membrane of the intestine is attached very accurately, by a sufficient number of interrupted sutures, to the perineal wound, in such a manner that the fæcal matter cannot come in contact with the surface of the perineal wound, and prevent union by first intention. The remaining portion of the perineal wound is also to be united by a sufficient number of sutures.

These are, in general, the leading features of the operation which I would recommend in cases of imperforate anus of new-born children.

In those cases (*vide* No. 2 of the Pathological Conditions) where the rectum terminates, instead of at its natural situation, at another portion of the perineum, scrotum, &c., with an opening insufficient for the free discharge of the fæces, the same operation is to be performed, and the fistulous canal afterwards destroyed by cauterization or by excision.

In those cases, again, (*vide* No. 3,) where there exists a natural anus, with no communication with the rectum, a septum intervening, it appears advisable that the anal opening should be excised, and then the same surgical manœuvre is adopted as in ordinary cases.

This is not the place to go into details relative to the surgical proceedings resorted to in cases where the surgeon does not succeed in discovering and opening the rectum—I mean the operation for opening the ascending or descending colon. The dangers of these operations are so great, the success so very doubtful, and often the condition of the patient, even after a successful operation, so deplorable, that I consider it the duty of the surgeon to try every surgical means in his power to establish an artificial anus at its natural situation. Amussat's praiseworthy researches, and a few so-called successful operations for imperforate anus in the lumbar region,* cannot alter my opinion. His method to establish an artificial anus in the lumbar region was adopted in cases where he failed to form an artificial anus in the perineum, and with the view of opening the intestine without

* Trois Mémoires sur la possibilité d'établir un Anus Artificiel dans la Région Lombaire sans pénétrer dans le Péritoine. Paris, 1839, 1841, 1842.

injuring the peritoneum, and thus avoid one of the most important objections to this operation.

But anatomical researches have proved that, in new-born children, the peritoneum often covers the whole colon, even on its posterior wall, and leaves, therefore, a doubt as to the possibility of always opening the intestine without injuring the peritoneum. Besides the inconveniences of an artificial anus in the lumbar region—namely, prolapsus, subsequent contraction of the artificial anus by the cicatrix, deficiency of a muscular apparatus to regulate the functions of the artificial anus, &c.—the subsequent dangers are so great compared with the perineal operation, that I recommend the latter very strongly, in preference to any other. This opinion is supported by the fact, that in many instances, where the hypogastric or lumbar operation was performed after an unsuccessful trial in the perineal region, the *post-mortem* examination has evidently shown that the rectum could have been reached through the perineal incision, had the surgeon continued his search.

The conclusion I arrive at is, that, as the surgeon can in most cases find the end of the rectum in the pelvis, he has only to explore the pelvis carefully, and after discovering it, to endeavor to establish the anus at its normal situation, since any other method for an artificial anus in the abdominal or lumbar regions is attended with too many dangers, and must be considered justifiable as a last resource only, under two circumstances:

1. Where it is impossible to carry the intestine downward through the pelvis, on account of too strong adhesions, the separations of which would be injurious to the neighboring organs, and fatal in its consequences.

2. Where the rectum or the termination of the intestines cannot be discovered in the pelvic cavity.

These conditions of the intestine being the exception in most of the cases of imperforate anus, the surgeon should exert all his skill and perseverance to establish the artificial anus at its natural situation.

On the Use and the Abuse of the Iodide of Potassium, and other Articles of the Materia Medica. By BERNARD KELLY, M.D., Physician to the New York Dispensary.

The greater the good, the greater the probability of its being abused. When the old alchemists were in search of the philosopher's

stone, whereby they sapiently concluded they could convert all things into gold, whatever new substance they discovered in their philanthropic investigations, they soon endued with panaceal powers; hence the great celebrity which dawned upon Basil Valentine's anti-monastic metal—Stibium. This is but a solitary instance of what might be cited of the wonderful credulity which tinged all the scientific theories of the Middle Ages. The names which yet cling with inveterate tenacity to many of our officinal preparations, only mirror too faithfully the conceited efficacy imputed to them by the ancient physicians. Thus the terms, *arcanum duplicatum*, *lignum vitæ*, *elixir salutis*, *proprietas*, *sal mirabile*, &c., &c., figure still on the pages of our pharmacopœias. The old Arabian and Greek pathologists seemed to be comparatively free from this pernicious tendency of ascribing mysterious powers to their remedies. Indeed, we do not know but that, in this respect, they would bear a very favorable comparison with men of the nineteenth century. The origin, and ultimate perfection of a science, often approximate in the principles which endue it with vitality; it is only in the intermediate stages that errors and false speculations distract investigators from the path which leads to just and legitimate conclusions. The works of Hippocrates contain most of the practical and important truths we find in modern medical authors.

It is curious to note, in the history of our profession, the conflicting shades of opinion which have obtained in all ages, and all climes, respecting the efficacy of the same medicinal agent in the same disease. To pass over examples of antiquity, and select those of comparatively recent date, colchicum is lauded by some to the stars, as a sovereign specific in gout and rheumatism, by others deemed completely inert. Conium, in the hands of Baron Störck, seldom or never failed to cure scirrhus and cancerous tumors, while others only recognize in it palliative properties. The Rochelle salt, in our own times, has acquired a world-wide reputation in the treatment of acute arthritic affections, its use, in such cases, being predicated by the coexistence of uric acid in the urine, which it is said to neutralize and render alkaline; but rheumatism, unfortunately, is not the only disease in which a deficiency of urea and an excess of uric acid are discovered, the same thing being found in all pathological conditions in which the equilibrium between the respiration and circulation is disturbed. Thus, uric acid predominates in the urine in all fevers and inflammations; more especially in pleuritis and pneumonia; the effete nitrogenous matter of the system not being duly oxydized, and converted into urea. So that, if the sal rochelle prove curative in rheumatism, it is

not because it changes an effect, not a cause of the disease, but in all probability, because it allays the inflammatory excitement by its refrigerant and purgative properties. As far as we have seen its efficacy in this complaint, we cannot say but that the sulphate of magnesia, or tartrate of antimony, would prove equally, if not more curative.

Either medicines vary in their action at different epochs; or diseases change their types, and grow unaccountably rebellious; or physicians err egregiously in their diagnosis; else why this discrepancy of opinion with respect to the virtues of therapeutic agents? Who has not heard of the magic power of sarsaparilla in annihilating syphilis, and all its scaly progeny? Aladin and his wonderful lamp never performed such feats, wrought such miracles. Its fame resounded throughout the length and breadth of the land; gorgeous palaces reared their proud summits beneath the touch of its golden wand; fierce litigations raged on its head; yet to-day, there is not one, even among the lowliest, to do it honor. *Sic transit gloria mundi!* For the last twenty years, medicine has made gigantic strides towards the goal of perfection, by reason of the light which the lamp of physiology has thrown upon the field of its research. Pathology, as revealed by *post-mortem* evidence, has done a vast deal. But, unhappily, there still exists an irresistible proclivity in the minds of physicians to relapse into the path trodden by countless generations, and consecrated by antiquity. The stale empiric leaven of the Middle Ages is not yet entirely expunged. Calomel, that *fair, dark* remedy, that two-edged sword, though not quite as fashionable now-a-days as some years ago, is still applied heroically in thousands of cases, where the resources of nature alone are fully adequate to the task. There is little sense, one would imagine, in killing a mosquito with a sledge-hammer; but there is still less sense, and far worse judgment, in using this formidable preparation in the treatment of diseases, where, at most, the spts. of mindererus, or nitre, or ipecac. would be indicated.

This brings us to speak of an article of the *Materia Medica* which surpasses in celebrity, and the extensive range of its action, any therapeutic agent of ancient or modern times—we allude to the iodide of potassium. Had this substance fallen in the way of the inquisitive alchemists, they would have doubtless hailed it with the same frantic demonstrations of delight, as did that philosopher of old, who, when the solution to an important question in physics, which had long remained enshrouded in the darkest mystery, burst for the first time upon his mental vision, ran naked through the streets, regardless of modesty and everything around him, shouting out *Eureka! Eureka!* Now, the iodide of potassium, though a most valuable remedy, is not

by any means the specific which the laudations and practice of many would lead us to suppose. We have seen it given with a good deal of confidence, on the part of the physician, to patients laboring under confirmed cardiac disease, with mitral or aortic regurgitation, where an anæmic countenance and œdematous limbs seemed to crave anxiously for iron; not that the latter would reach the disease any more than the iodide, but the distressing symptoms of regurgitation and anasarca are very sensibly relieved under its judicious use. Molasses, or any other viscid substance, flows through a narrow aperture, when propelled, as the blood is, by a sudden, energetic, and brisk impulse, almost with the same rapidity as water under the same circumstances; whereas, when this power is removed, and both fluids are left to the agency of their own specific weight, there is a vast difference in the speed with which each accomplishes its reflux—the water, though much the lighter runner, being *facile princeps* in the race. In no other way can we account for the amelioration of the symptoms in cardiac disease, especially when complicated with anæmia, than by a knowledge of the important fact that the blood acquires a greater degree of consistence and viscosity under the use of chalybeates, and consequently prevents more effectually its *liquor sanguinis* from filtering through the coats of the vessels, or promotes its absorption, if already effused, on the principle of *exosmosis* and *endosmosis*. The regurgitation is also, for the same reasons, very materially diminished. The iodide, on the contrary, possesses the remarkable property of attenuating the blood, thereby increasing the reflux current, and the tendency to dropsical accumulations—the very accidents we desire most anxiously to ward off. To be sure, under certain circumstances, it removes serous effusions by the action of its diuretic property, but this rule applies almost universally in local inflammations, and never in dropsies complicated with anæmia and dependent upon organic cardiac disease. Not by any means the most trivial abuse of this medicine is its wanton and indiscriminate employment in all stages and forms of syphilis. From the soft, non-infecting sore to the indurated chancre, from the serpigenous to the phagadenic, from the primary to the tertiary, and *quaternary*, if there be such a stage, it is used as the *sine quâ non*, the sheet-anchor upon which we are to rest all our safety and expectations.

Now, Ricord has shown (and in this consists, perhaps, his most imperishable claim to glory) that there is but one variety of the primary sore that requires any specific treatment; that the soft, the phagadenic, the serpigenous and gangrenous kinds, far from needing mercury

or the iodide of potassium, are, on the contrary, generally aggravated by their internal exhibition, and improve under the use of iron, quinine, and stimulating local applications. The only form of syphilis in which the iodide is admissible is the tertiary, for which it may be well termed a safe and certain specific. No doubt it relieves patients laboring under secondaries, but its action here is purely palliative; it soothes the rheumatic and nocturnal pains, without reaching their source; it beguiles the unhappy sufferer into the delusive conviction that he is fast getting well, while, in reality, it protracts and postpones his radical cure; in a word, it is totally incompetent, though possessing great virtues, to compete with the ruthless enemy which occupies the citadel. The disease must abate considerably in its virulence before we can rationally rely upon this agent as an antidote; hence its glorious achievements in all tertiary forms. But if the iodide prove an unequal match in combating syphilis in the earlier stages, there are other maladies over which it exercises powerful control.

We know of no better remedy in the subacute and chronic forms of articular rheumatism, when administered in considerable doses, say from 8 to 10 grs. for adults, and repeated every three or four hours. In the incipient stage of phthisis, before the tubercles are deposited to any great extent, or previous to their softening, it may be very advantageously used with the double view of arresting their further development and promoting their absorption. In the intermediate and last stages of the disease, it can never legitimately supersede the use of quinine, iron, and cod-liver oil. In chronic pleuritis and the gray hepatization of pneumonia there can scarcely be a more efficient therapeutic. It seems to act in such cases, not only as a diuretic, in removing serous and other abnormal effusions, but also as a powerful alterative, in changing the local morbid processes, by entering the circulation, and stimulating the inflamed capillaries to contraction, thus relieving the engorgement upon which the phlegmasia depends. In a word, it may be reliably given in all strumous, subacute, and chronic inflammations, wherever located, backed up by stimulating topical applications, when practicable, or not contra-indicated by the peculiarity of the case.

Memoir on Amyloid Corpuscles, existing as normal Products on the Surface of the Skin. By JULES LUYS.

In October, 1853, Virchow announced to the Academy of Sciences the existence in the human body of a peculiar substance, giving rise to

the same chemical reactions as vegetable cellulose; and in November, of the same year, he completed his discovery, in announcing that he met this substance in the brain and spinal column; and, furthermore, in a pathological condition in certain kinds of alteration of the spleen, known by the name of cirrhus degeneration of a colloid form, and that this substance could be detected by the action of iodine and sulphuric acid. In June, 1857, he published a new fact—the existence of amylaceous degeneration of several organs at the same time. It occurred in a woman who had died of Bright's disease. At the autopsy, there was found such a degeneration of both kidneys, the spleen and the liver. In the kidneys the small arteries and corpuscles exhibited this state, and in the liver the small vessels of the Malpighian *acini*. The vessels of the villous coat of the intestines seemed also to exhibit an amyloid substance. The uterine parenchyma had undergone the same kind of alteration, and the glossy muscular fibres were infiltrated with this substance. The fleshy mass of the heart presented also this appearance, and it was found in the nerves. This discovery was confirmed by Carter, of Edinburgh, (1855 and 1858,) who showed the diffusion of the substance through almost all the tissues of the human body. He had encountered the amyloid corpuscles in organs most diverse in character, in individuals that had succumbed to different diseases, and in animals in a condition of health; hence he ranked it among the normal productions of the organism, and considered that the presence of this substance was a condition of health, and possibly one of its necessities. Virchow considered it a pathological production. It will be readily seen how great a resemblance, according to Carter's notion, there is in the phenomena taking place in the animal and vegetable organisms.

M. Luys endeavors to prove that: 1. The cutaneous integument is endowed, in a physiological and pathological condition, with the property of producing amyloid corpuscles. (Carter had only noticed them in certain cases of ichthyosis, in the lower layers of the derm, and in this particular case considered them as connected with a morbid condition.) 2. The corpuscles present the reactions of amyloid substances.

1. When the surface of the skin, slightly moistened, is scraped with the back of a scalpel, it is surprising to find, amid the sebaceous matter removed, a large number of corpuscles with an appearance similar to granules of starch, and behaving like these, under the action of iodine. If the scraping is made somewhat deeper than the surface, they are still found. All the surface of the cutaneous integument is

endowed with this remarkable property. The regions where the amyloeous production is at its maximum seem to be the back of the neck and the scalp. The epithelial lamellæ, which the comb or brush removes, are literally covered with a large quantity of these very corpuscles.

An objection may be brought forward to the conclusions drawn from such examinations as to the source of the amyloid substances; it may be insisted upon that these have come from the atmosphere, with which the body is always in contact, or from starched linen clothing. To which Luys replies by stating, that although dust in the atmosphere may occasionally contain amyloid particles, yet the fact is by no means general; that the per centage of these particles under such circumstances is very small, and hence insufficient to explain the large quantity of amyloid matter found covering the epidermis, and even some distance below its surface. As to the amyloid substances being furnished by linen clothing—of course it could only have this origin where such clothing was starched, as the collars and bosoms of shirts, &c., in the fibres of which starch can always be found; but in these cases the particles vary notably from those met with on the surface of the skin; they are pale, almost colorless, and the most of them are partially disaggregated. Luys assured himself that the material from the head did not contain this form of amyloid particles. In order to make the proof most certain, he made the following experiment: After having carefully washed a portion of the surface of his arm with an alkaline solution, and with alcohol, he covered it with a watch-glass, leaving it in contact from twelve to fifteen hours. At the end of this time, on scraping the surface with the back of a scalpel, he obtained a quantity of pure sebaceous matter, white as white wax, which contained amyloid corpuscles. The experiment was performed on both arms and on the epigastric region.

To these last experiments it may be objected that some starch-particles, in the neighborhood of the watch-glass, had passed under it, and thus become a source of error. To meet this objection, he determined to examine some of the sebaceous matter of the skin of a foetus at the moment of expulsion from the vulva. On analyzing the cutaneous sebaceous matter of the foetus, he determined the presence *there* of the amyloid matter, less abundant, it is true, than in the adult, but still in sufficiently large quantity to afford the proper reactions for starch.

His final experiment was performed by dissecting off a piece of skin, isolating it from the subjacent tissues, and then making a transverse section with a razor that had been newly sharpened. When this sec-

tion was moistened with tincture of iodine, and placed under a microscope of 50 diameters, the amyloid corpuscles were perceptible *in situ*, in the thickness of the sub-cutaneous areolar tissue, in the dermis, and in the stratified layers of the epidermis.

In the examination of the properties of these bodies, those removed from the fœtus, at the instant of leaving the uterine cavity, were taken as typical. Examined by reflected light on a dark background, they seemed like points possessed of a shining, vitreous aspect; by refracted light they were yellowish, with dark outlines, and with considerable enlargement (500 diameters) they appeared pale and transparent. In size they vary between the 1-100 and 4-100 of a millimetre, and some rudimentary ones have been found, not even the 1-1,000 of a millimetre. They are not constant in form; those of the fœtus are compressible under the pressure of the cover-glass; can be flattened out, but nevertheless are readily removed from the fatty matters by which they are surrounded. Generally, they are discoidal, like sea-biscuits, depressed in the centre, and consequently slightly bi-concave; some exhibit on their surface fatty granules and other fissures. The edges are raised, and formed of concentric layers. A small linear depression, sometimes bifid or trifid, such as is observed on grains of starch, has not been recognized as a constant characteristic. They are homogeneous throughout, with clean fracture, and do not contain any cavity.

Chemical Characteristics.—They are insoluble in cold water, ether, absolute alcohol, whether warm or cold, oil of turpentine and ammonia. A solution of soda or potassa causes them to swell up, or bleaches them; iodine colors them instantly a dark violet, almost black; with sulphuric acid the color becomes a full blue, and it is not a rare circumstance to find, when one is examining matter from the skin, especially after having heated it, floating in the field of the microscope, blue, plaited membranous appearances, and irregular masses of a bluish substance. If, after being colored with iodine, they are heated in a little water, (care being taken so that they shall not be removed from the field of vision,) as the heat is increased they grow paler and disappear at ebullition, and as the temperature falls they reappear with their first coloration. On being subjected to dry heat, after being darkened by iodine, they become red like *terra de sienna*.

Berthelot, to whom some of the amyloid substance from the skin of the fœtus had been sent for examination, subjected it to the following treatment:

The sebaceous matter was treated with boiling ether, in order to remove the fatty substances; then with a weak solution of potassa,

($\frac{1}{2}$ per cent.) to remove the albuminoid; the insoluble portion was then washed thoroughly with cold water and acetic acid, and dried in a vacuum. The examination of this substance afforded, with iodine alone and iodine and sulphuric acid together, the reactions already noticed. Some of the corpuscles retained their discoidal form; the greater portion had lost it, although there was obtained, by way of compensation, a notable quantity of blue amorphous granular matter, and of floating masses, also blue in color, having the appearance of plaited membranes.

These results seem to justify the conclusion that this substance, although it has not as yet furnished one indication of amylaceous matter in the formation of sugar, still presents wonderful analogies to vegetable starch.

CORPUSCLES OF THE SKIN.

1. *Physiological Condition*.—Luys has met them on the skin of a fœtus of five months, and on that of a woman of 80 years; in almost the same proportions on the skin of the negro and the white. In the adult they seem more firm, more resisting under the pressure of the cover-glass. Their concentric layers are more distinct; and mostly they are regularly discoidal, elevated at the edges with a circular ridge, depressed at the centre; such as present the bifid or trifid median incisions are very rare. They afford the same chemical reactions as those of the fœtus. There seems to be a tendency with certain of them (the oldest) to quit the circular form, in order to assume the angular.

2. *Pathological Condition*.—1. The formation of sebaceous matter is separate and distinct from that of these corpuscles; the first may fail, and the second continue very abundant.

2. In 30 patients, laboring under various diseases, Luys has found no disappearance of the amyloid corpuscles. There is a notable diminution of their quantity in cachexia, and diseases where the nutritive functions are diminished. Thus, in three cases of phthisis pulmonalis, with profuse and debilitating sweats; in two cases of cancer of the stomach, with considerable emaciation; in two cases of typhoid fever during convalescence; and in one case of rheumatism, the mean of the corpuscles collected on the back of the neck fell to 15, 20 and 22, in the preparation. In a female with albuminuria and anasarca, they were found abundantly, (60 to 65,) and coincided with an abundant production of sebaceous matter. On the other hand, in a man with albuminuria, (with dry, non-œdematous skin,) an almost equal number were found; these became blue under the action of iodine, those dark violet.

3. In two cases of diabetes, where there was no emaciation, and the digestive functions were regularly performed, a slight augmentation was met with—100–110.

4. A young boy of 16 years, with arrested physical development, so that he did not appear to be over 10 or 12, having a dry, icteric skin, was examined, and not only was a slight augmentation of these corpuscles observed, but one absolutely prodigious. The sebaceous matter was entirely wanting. At the autopsy, a scirrhus liver, with hypertrophy of the spleen, was discovered. The hepatic tissue exhibited these corpuscles; and they appeared to be distributed through the whole organ, without any special localization, in the corners of its cells.

5. As regards cutaneous pathology, Luys has, thus far, not found the corpuscles absolutely wanting anywhere. They have been found on the scalp in a child attacked with *Favus*, in the crusts of a syphilitic rupia, and in the interstices of the sound skin, on the skin of subjects laboring under malignant scrofulous affections, with or without induration, (and in this case the number of the corpuscles was very considerable.) It seemed that the incessant desquamation of the epidermis discovered them freely, and permitted more readily their being collected; and, in these cases, the specimens were of the minimum diameter. In a case of syphilitic psoriasis of the skin of the knee, with a white silvery appearance, but few were detected.

The question of the origin of these bodies is involved in doubt. Luys thinks that the primitive material exudes in the form of a granular liquid, and that when a nucleus is formed around it, the molecules, that come within its sphere of attraction, collect and arrange themselves in concentric layers.

CONCLUSIONS.—1. The skin, in a physiological condition, is the seat of an incessant production of amylaceous corpuscles, which are brought from its lower layers to the surface in the process of desquamation.

2. The corpuscles do not come from foreign bodies around, since they are found on the skin of the fœtus at the very moment it leaves the vulva.

3. The production exists anterior to birth, and it is continued up to very advanced age. Luys has even detected it on the dry and parchment-like skin of a woman 84 years old.

4. It seems to have some connection with the activity of organic renovation; it diminishes in cachexias, (phthisis, cancer of the stomach, &c.) It appeared to have gone beyond the physiological mean in two cases of *diabetes*; and in cirrhosis it attained a large figure, the liver itself containing corpuscles.

5. The physiological rôle of the corpuscles is still very obscure. Their solid nature and concentric layers indicate that they are formed *en place*, and successively, at the expense of something which escapes from the vessels in a liquid condition; and this something may be nothing else but the glucogenic material of Mons. Claude Bernard, which, incessantly pouring forth from the liver, as a focus of generation, is taken up by the blood and distributed through all the tissues of the organism. Exuded from vessels in contact with histological elements, it then assumes its proper form, and grows *in situ*, by the deposition of fresh molecules, and the formation of concentric layers.—*Gazette Médicale de Paris*.
L. H. S.

Abstracts from French Medical Journals.

Two Cases of Death by Chloroform.—Two deaths have occurred from chloroform in the hospitals of Paris, in the hands of two surgeons not less eminent for their knowledge than for their prudence, and the precautions they are accustomed to employ in the administration of this agent.

The first case was a man, aged 44, strong and vigorous. It was proposed to reduce a luxation of the shoulder. From 15 to 20 grammes of the anæsthetic were employed. The chloroformization followed its usual course; first *excitation*, then *relaxation*. The pulse continued calm, as well as the breathing; the expression of countenance was not changed; nothing indicated an unfavorable result. Relaxation having been obtained, Richet proceeded with the reduction, having removed the chloroform from the patient. Suddenly, the reduction being accomplished, the pulse ceased on both sides; there were no longer precordial palpitations, although the respiration continued. This soon ceased; then Richet used artificial respiration. Three inspirations were obtained, but the patient succumbed, without any movements of the heart being re-established.

The second case was a girl, aged $7\frac{1}{2}$ years, in the service of M. Marjolin. Four grammes of chloroform were employed. It was employed, as in the preceding case, in a bloodless operation—that for coxalgia, (Bonnet's treatment.) The child submitted readily to the inhalations. The first attempt was followed by cries from the child, who endeavored to place its free hand on the diseased hip. In a few seconds the anæsthetic sleep and relaxation were produced, although

the anæsthesia was not profound, since but few manipulations had been made when the cries and agitation were re-established. The surgeon ceased his operations, and suddenly the cries and muscular resistance ceased. Instinctively, and as if from a sad presentiment, Marjolin looked at the child. The physiognomy was strange; the head was turned towards the bolster; the countenance more highly colored than a few moments before; eyes fixed, and half closed. The pulse and heart being examined, no pulsations were perceived; three or four inspirations, becoming weaker and weaker, then took place; all relief proved useless; death was certain.

In these two cases the pulse and the heart ceased to furnish palpitations, although the respiration continued. There was no asphyxia, but a contrary effect in each case. In both the countenance, at the moment of death, preserved its color; and hence, death did not take place from syncope. How, then did, the chloroform act? Was it by direct action on the heart and the lungs, which were as if paralyzed by it? These questions have not as yet been settled.—*Journ. de Pharm.*

L. H. S.

Toxic Effects of Absinthe.—For some years past the abuse of *absinthe* in France has been very great. In the March number of the *Jour. de Chim. Méd.*, we find the following notice of its effects:

Many artists and literary persons demand from *absinthe* a factitious excitement and inspiration, without thinking that each succeeding day, to obtain a like effect, requires a stronger dose than its predecessor; without thinking that by accustoming themselves to this easy exaltation of the faculties, coming whenever demanded, they are blunting their intellects and destroying their health.

The effects of this poison are terrible—overwhelming; an unconquerable enfeeblement and a continuous somnolence succeed febrile ecstasies, full of delirious dreams and raging inspirations. The eyes become dull, the hands tremulous; work is no longer possible without *absinthe*. Under the influence of renewed employment of the agent the reason totters, and a day arrives when the victim attains intoxication, no longer finding inspiration. He is then hopelessly lost; what had before been only a necessary accompaniment to labor, has now become a degrading passion; a daily habit, which he cannot throw off. The poet is dead—nothing remains but the drunkard. Like opium, *absinthe* has its fanatical friends and its victims. The writer specifies

two cases: one a romancist and another a poet, who have fallen victims to the use of this *liqueur*.
L. H. S.

Peculiar Effects of Phosphorus.—At a session of the *Cercle de la Presse Scientifique*, in Paris, the Abbé Moignot directed attention to two facts, novel, and fit to figure in the pathogenesis of a poison, already charged with so many mischievous properties. Females, being *enceinte*, breathing air filled with phosphoric emanations in the establishments where matches are made, are sure to abort; and this result is so common and well known, that, in localities where the manufacture of matches engages a large number of workmen, the women profit by it to rid themselves of the product of conception. The abbé made this statement on the authority of a pious ecclesiastic, who guaranteed its authenticity. In men submitted to the same conditions, phosphorus vapors induce, after a little while, a vehement excitation of the generative functions. It is now left to the profession to verify the truth of these statements, full of interest, and susceptible, possibly, of being made useful, not only in prophylaxis, but also in therapeutics. Mons. Chevallier has commenced an investigation of the subject, which will be afforded the public as soon as any reliable results have been obtained.—*Jour. de Chim. Méd.*

Pommade de Jaser for Scabies.—According to M. Delaharpe, physician to the hospital at Lausanne, of all the pomades proposed for the treatment of itch, one of the most efficacious is that of Jaser. Mons. D. has employed it for a number of years, with constant success.

The following is the formula for its preparation:

Sulphur Lotum,	16 grammes.
Zinci sulphas,	6 “
Veratrum album, (pulv.,)	4 “
Sapo niger,	32 “
Axungia porci,	64 “
Tinct. ol. Carui,	1 gramme.

It will require about 250 grammes (about 8 ounces) of this pomade to effect a cure. A slight attack disappears after a single friction, preceded by a soap bath. When, however, the eruption is

general, there should be two, three, or four applications made morning and evening.

In this preparation, the lard and the potassa-soap modify each other, although, by increasing the proportion of the soap, a risk would be incurred of making the pomade too irritating. The sulphate does not act here as a corrosive agent, as one might suppose, since it is entirely decomposed by the soap, resulting in the formation of a small quantity of sulphate of potash and sulphide of zinc. The powdered hellebore is necessarily the most active anti-psoric element, along with the tincture of caraway. Delaharpe believes that the proportions given above of the different constituents are the best adapted for the manufacture of the pomade.—*Journ. d'Anvers*.

L. H. S.

Chlohydric Acid in Cutaneous Affections. By M. KLETZINSKI.—From a great number of experiments made with different agents, it results, according to the author, that none provokes or stimulates the cutaneous perspiration more than chlohydric acid. A portion of the skin wet with this liquid perspires in the same time, and under the same circumstances, 27 to 30 per cent. more carbonic acid, and, what is remarkable, 7 to 12 per cent. less water, than the same portion not wet. The author concludes that,

1. The chlohydric acid re-establishes the circulation of the blood when it is periodically interrupted, and accelerates it. It consequently cures chilblains, and even prevents them.

2. It diminishes the uncomfortable sweatings of the hands and feet, and causes them to cease entirely after a long-continued use of it.

3. It is employed with success for the following diseases of the skin: *acne sebacea*, *navi*, *condylomatas*.

4. It does not injure the skin in any way, if properly used; on the contrary, it softens it, and can be regarded as a real cosmetic.

When employed, it should contain neither iron nor chlorine. It is used as concentrated as the patient can bear without feeling a burning sensation, and after thirty to sixty seconds the wet part is washed at first with pure water, and then with soap and water. For application to very sensitive parts of the skin, the acid should be greatly diluted with glycerine, and neutralized in a very short time.—*Echo Médicale*.

PROCEEDINGS OF SOCIETIES.

American Medical Association.

LOUISVILLE, May 3, 1859.

The Twelfth Annual Meeting of the Association met at eleven o'clock, A. M., in Mozart Hall, the President, Dr. Harvey Lindsly, of the District of Columbia, in the chair, supported by Drs. W. L. Sutton, of Kentucky, Thomas O. Edwards, of Iowa, Josiah Crosby, of Massachusetts, and W. C. Warren, of North Carolina, as Vice-Presidents, with Drs. Alexander J. Semmes, of the District of Columbia, and S. M. Bemiss, of Kentucky, acting as Secretaries. Dr. Caspar Wister, of Pennsylvania, Treasurer, was also in attendance.

The President introduced the Rev. Mr. Robinson, of Louisville, who opened the proceedings with prayer.

Dr. Robert J. Breckinridge, chairman of the Committee of Arrangements, then welcomed the delegates to the city.

Prof. Joshua B. Flint, of Louisville, accompanied by Drs. Sutton, Chipley, Spilman, and Snead, then came forward, and in behalf of the "State Medical Society of Kentucky," bid the Association welcome to the medical jurisdiction of Kentucky.

The Secretary, Dr. Bemiss, then called the roll of members of the Association.

The President now announced a recess of fifteen minutes, to enable the various State delegations to choose their members for the Committee on Nominations.

Upon call to order, the following members were reported as the Nominating Committee:

New Hampshire, Dixie Crosby; Massachusetts, Solomon D. Townsend; Rhode Island, J. H. Eldridge; New York, D. M. Reese; New Jersey, A. N. Dougherty; Pennsylvania, R. K. Smith; Delaware, H. F. Askew; Maryland, G. W. Lawrence; District of Columbia, Cornelius Boyle; Virginia, L. S. Joynes; North Carolina, Edward Warren, Jr.; South Carolina, J. M. Gaston; Georgia, John W. Jones; Alabama, J. B. Coons; Louisiana, S. O. Scruggs; Tennessee, E. B. Haskins; Kentucky, D. D. Thomson; Ohio, George Fries; Indiana, J. H. Brower; Michigan, William Brodie; Illinois, C. Goodbrake; Missouri, M. L. Linton; Iowa, D. L. McGugin; Wisconsin, C. B. Chapman; Army, C. S. Tripler.

The President then appointed the following gentlemen a committee on voluntary essays: Drs. L. P. Yandell of Kentucky, James Bryan of Philadelphia, and C. G. Comegys of Ohio.

Dr. R. J. Breckinridge, from the Committee of Arrangements, announced the hours of business from 9 A. M. to 1 P. M. and 3 P. M., until such hour as the Convention should adjourn upon resolution; which arrangement was adopted.

Dr. Harvey Lindsly, the President of the Association, then read his retiring address, which was listened to with marked attention, and was an eloquent tribute to the dignity of the medical profession and the importance of its improvements.

After he had concluded, Dr. L. A. Smith, of New Jersey, moved that the thanks of the Association be tendered to the President for his able and eloquent address, and it was ordered to be placed in the hands of the appropriate committee for publication, among the proceedings of the meeting.

Dr. Caspar Wister, chairman of the Committee on Publication, read the annual report, and on motion of Dr. Sayre, of New York, the following resolutions appended to it were unanimously adopted:

“Resolved, That hereafter every paper intended for publication in the Transactions must not only be placed in the hands of the Committee of Publication by the first of June, but it must also be so prepared as to require no material alteration or addition at the hands of the author.

“Resolved, That authors of papers be required to return their proofs within two weeks after their reception, otherwise they will be passed over and omitted from the volume.”

Adjourned until 3 o'clock, P. M.

AFTERNOON SESSION.—Dr. W. L. Sutton, one of the Vice-Presidents, took the chair, in the absence of the President.

Dr. D. Meredith Reese, of New York, chairman of the Committee on Nominations, reported the following officers for the ensuing year:

President.—Henry Miller, of Kentucky.

Vice-Presidents.—H. F. Askew, Delaware; Chas. S. Tripler, U. S. Army; L. A. Smith, New Jersey; Calvin West, Indiana.

Treasurer.—Caspar Wister, Pennsylvania.

Secretary.—S. M. Bemiss, Kentucky.

Dr. Sayre moved the adoption of the report, which was unanimously agreed to.

Dr. Brainard, of Illinois, moved the appointment of a committee to conduct the newly-appointed officers to their respective chairs. The Acting President selected Drs. Brainard, of Illinois, Mattingly, of Kentucky, Sutton, of Indiana, McDowell, of Missouri, and R. J. Breckinridge, of Kentucky, and they accordingly performed the duties assigned to them.

The newly-elected President, on taking the chair, addressed the Convention in substance as follows:

Gentlemen of the American Medical Association—I am wholly at a loss to command language to express the deep sense of obligation put upon me by calling me to the Presidency of your Association. It is an honor any man may well be proud of; and although I admit in all sincerity that you might without difficulty have selected an individual more worthy the position, I may be allowed to say you could not have conferred it upon one who would prize it more highly or cherish it longer with the most grateful recollection. I do esteem it the greatest honor ever conferred upon me by the profession that I love, and to which I have devoted a long life; nay, more—it is the greatest honor that could be conferred upon any man by the medical or any other profession in this or any other country; for any decoration of honor or any mark of approbation conferred by a crowned head I should regard as a bauble in comparison. Who are you, gentlemen, when rightly considered? You are the rightful representatives of the great American Medical Profession—an army forty thousand strong, and a body of men, no matter what captious criticism may say in disparaging comparison with the European branch of the profession, in my humble judgment, far superior to the same number of medical men to be found in any quarter of the globe. Although, as a body, you may not be so learned, so critically and nicely framed in all the minutiae of the profession, yet for strength, integrity, and precision in all the great principles guiding to a successful combat with disease, this body is equal, if not superior, to that of any kingdom of Continental Europe.

To be called to the Presidency of such a body of men, is, in my sober judgment, the greatest compliment that could be conferred on mortal man, provided that man is a devotee of medicine, who has given his whole mind, soul, heart, and strength individually to the profession, and has that high regard for it which will not suffer any less noble pursuit to interfere with the daily though laborious duties of the profession.

Coming so recently from a sick-bed, and still enfeebled in health, I beg to be excused from further remarks, and desire you to accept this brief and imperfect acknowledgment of the distinguished honor conferred upon me, instead of what, under other circumstances, I might be disposed to say.

Dr. R. J. Breckinridge moved that the thanks of the Association be tendered to the retiring officers for the faithful and assiduous man-

ner in which they have conducted the business committed to their charge, which was unanimously adopted.

Several names were now offered as candidates for membership, by invitation, when

Dr. T. O. Edwards moved that no person be admitted as a member by invitation, unless his good standing in the profession be vouched for by some member of the Association, which was adopted.

Dr. Eve moved a reconsideration of the motion by Dr. Edwards, which was carried; and upon motion of Dr. Edwards, all applications for membership, by invitation, were referred to the Committee of Arrangements and Credentials.

Dr. J. B. Lindsly, of Tennessee, offered the following:

"Resolved, That a committee of three be appointed by the chair to inquire into and report upon the propriety of dividing the Association into sections, for the purpose of performing such parts of its scientific labors as may relate to particular branches of medicine and surgery."

Dr. Brodie moved its reference to the Nominating Committee.

Dr. Brainard explained at some length the object of the resolution of inquiry, and urged its adoption, as the means of giving more effect and usefulness to the proceedings of the Association, the reports of which had heretofore gone out unmatured in consequence of the want of concentrated action.

A motion by Dr. Sayre to lay the motion on the table was negatived, and the motion of Dr. Lindsly was then adopted.

The Chair appointed as the committee: Dr. Lindsly, of Tenn.; Dr. Brainard, of Ill.; Dr. G. C. Blackman, of Ohio.

Dr. Davis moved that no person be permitted to speak more than twice on the same subject, or more than ten minutes at one time, except by consent of the Association, which was adopted.

The Standing Committee on Prize Essays was called on for their report, but without a response. This was also the case with the Committee on Medical Education. The Committee on Medical Literature had no report to present.

A letter from Dr. J. G. F. Holston, of Ohio, chairman of the Special Committee on the Microscope, was read, reporting progress, and begging a continuance for more extended investigation, which was referred to the Committee on Nominations.

A letter from Dr. Stephen Smith, of New York, from the Special Committee on Medical Jurisprudence, had the same reference.

The Special Committee on Quarantine was not ready to report.

Dr. Mattingly, of Kentucky, from the Special Committee on Diseases

and Mortality of Boarding Schools, asked a continuance until next year, in order to obtain further information requisite to the full investigation of the important subject. This was referred to the Committee on Nominations.

The Special Committee on Surgical Operations for the Relief of Defective Vision, on Milk Sickness, and on the Blood Corpusele, had the same reference.

A report from the Committee on Medical Ethics was read, laid on the table, and such portion of it as related to the action of the Du-buque Medical Society, in the case of an expelled member, was, on motion of Dr. T. O. Edwards, made the special order for to-morrow, at 12 o'clock, M.

Continuances were asked by the Committees on the Pons Varolii, Medulla Oblongata, and Spinal Marrow—their Pathology and Therapeutics; on American Medical Necrology; on the Hygienic Relations of Air, Food, and Water, the Natural and Artificial Causes of their Impurity, and the best Methods by which they can be made most effectually to contribute to the Public Health; on the Effect of the Virus of Rattlesnakes, &c., when introduced into the System of the Mammalia; on the Climate of the Pacific Coast, and its Modifying Influences upon Inflammatory Action and Diseases generally; on the Constitutional Origin of Local Diseases, and the Local Origin of Constitutional Diseases; on the Physiological Effects of the Hydro Carbons; on Epilepsy; on the Causes of the Impulse of the Heart, and the Agencies which influence it in Health and Disease; and on the best Substitute for Cinchona, and its Preparations, in the Treatment of Intermittent Fever, &c.; all of which were referred to the Committee on Nominations.

The Special Committee on Government Meteorological Reports made a report, written by Dr. R. H. Coolidge, of the U. S. Army, but read by Dr. Paul F. Eve, of Tennessee, which was referred to the Committee on Publication.

The committee, appointed in May, 1857, on Criminal Abortion, submitted a report, written by Dr. Storer, of Boston, which was read by Dr. Blatchford, of New York, and referred to the Committee on Publication. The following resolutions appended to this report were unanimously adopted:

“*Resolved*, That while physicians have long been united in condemning the act of producing abortion at every period of gestation, except as necessary for preserving the life of either mother or child, it has become the duty of this Association, in view of the prevalence and

increasing frequency of the crime, publicly to enter an earnest and solemn protest against such unwarrantable destruction of human life.

"*Resolved*, That in pursuance of the grand and noble calling we profess—the saving of human lives—and of the sacred responsibilities thereby devolving upon us, the Association present this subject to the attention of the several Legislative Assemblies of the Union, with the prayer that the laws by which the crime of procuring abortion is attempted to be controlled may be revised, and that such other action may be taken in the premises as they, in their wisdom, may deem necessary.

"*Resolved*, That the Association request the zealous co-operation of the various State Medical Societies in pressing the subject upon the Legislatures of their respective States, and that the President and Secretaries of the Association are hereby authorized to carry out by memorial these resolutions."

The Convention then adjourned till to-morrow morning at 9 o'clock.

WEDNESDAY, *May 4th*, 1859.

SECOND DAY.—The President, Dr. Miller, called the Association to order at 9 o'clock.

Dr. D. Meredith Reese, chairman of the Committee on Nominations, called attention to the fact that the committee could not act definitely until the place for next year's meeting should be designated. He stated also, that the Medical State Society of Connecticut had requested that an amendment to the Constitution, proposed two years since, should be taken from the table, relative to the time of meeting.

It was moved by Dr. Blatchford, and seconded by Dr. Sayre, that the amendment to the third article of the Constitution be taken up, which proposes to add after the words "first Tuesday in May," the words "or first Tuesday in June;" and after the words "shall be determined," the words "with the time of meeting."

The amendment was adopted by a constitutional vote.

Dr. D. M. Reese also stated that the Connecticut brethren had extended a kindly invitation to the Association to hold its next meeting at New Haven, through Dr. C. Hooker; which invitation was referred to the Committee on Nominations.

Dr. Reese also called attention to the necessity of some radical change in the mode of appointing committees to prepare treatises on scientific subjects to be reported at the annual meetings. It had been seen that, on yesterday, a large majority of the committees made no reports, and did not even see proper to send in any communication explanatory of delay. The difficulty heretofore has originated in the mode of selection adopted by the Nominating Committee. It has been customary for gentlemen to hand in their names and the proposed

subjects on slips of paper, and the committee, without further investigation, have so published in the annual reports. Thus it has happened that appointments have been most injudiciously made, and gentlemen, to whom a special duty has been assigned, have been found to know less of that than any other subject. He therefore hoped that no committee of last year would be reappointed or continued from which no report had been had, and no communication received.

On motion, the Nominating Committee was unanimously instructed to act upon the suggestions of the chairman, who also stated that there should be some definite expression of disapprobation as to the course of those gentlemen who had volunteered essays, and had their names reported in the newspapers and spread over the land, and then paid no further attention to the matter.

Dr. Flint, from the Committee on Prize Essays, begged leave to report that they received four dissertations in time for a careful and thorough examination, and two others, quite voluminous, only two days before the meeting of the Association. The latter we have felt constrained to exclude altogether from the competition of the present year, on account of the absolute impossibility of reading them with a critical purpose and effect. The others have been carefully examined by all the surviving members of the committee—one estimable associate, Dr. Evans, having been called from all his earthly labors before the active duties of the committee began.

More than one of the four essays we examined exhibited much labor, and a commendable scholarship in their preparation—are voluminous, and in some respects very meritorious papers; but, in the unanimous judgment of the committee, neither of them possesses the degree and species of merit which should entitle its author to the Association prize.

The committee beg leave futhermore to report, that in their opinion, and as the suggestion of their own recent experience, the Association should determine in more precise and formal manner than has yet been done, the terms and conditions of competition and of success in the contest for prizes, for the government alike of contestants and the committee of adjudication, and that a committee be now appointed to consider and report upon the subject.

Dr. Gordon, chairman of Committee on Etiology and Pathology of Cholera, made a partial report, and asked continuance of time.

On motion, the report was accepted, and referred to Committee on Publication, and the petition for continuance referred to Nominating Committee.

Dr. J. B. Lindsly, chairman of the committee appointed to inquire into the propriety of dividing the Association into sections, for the better performance of its work in considering the various branches of medicine and surgery, recommended the adoption of such a plan, as being indispensably necessary to making this body a working scientific association. They do not deem it necessary to enter into any argument in favor of this plan, it being the one already universally adopted by similar bodies. They would simply recommend, for the present, a division into the following sections, as being most suitable to facilitate the transaction of business, viz.:

1. Anatomy and Physiology. 2. Chemistry and Materia Medica.
3. Practical Medicine and Obstetrics. 4. Surgery.

The committee do not propose that this subdivision of labor shall in any manner interfere with the regular business of the Association as now conducted; but only that after having assembled each day in general session, each section shall meet separately for the purpose of hearing and discussing papers on such subjects as properly belong to them, and they therefore recommend that the Committee of Arrangements for the ensuing year be requested to provide suitable accommodations for the services of these sections, and that each of said sections shall be authorized to make such arrangements as may be required for the proper transaction of its business.

This report was considered and adopted, after a very able speech in its support by Dr. Davis.

Dr. J. W. Singleton, of Ky., moved the suspension of the rules for the introduction of the following:

"Resolved, That in the death of Dr. A. Evans, of Kentucky, the Association has lost one of its most manly and efficient members, and society a friend and benefactor."

The resolution was unanimously adopted.

Dr. W. L. Sutton, under the resolution appointing a committee on registration of births, marriages, &c., proposed a plan of general action, an abstract of which he read on motion of Dr. Gibbs, of S. C., and on motion of Dr. L. P. Yandell, the subject was referred to a committee, to report during the present session.

Drs. Sutton, J. B. Lindsly, W. R. Gibbs, James Bryan, Z. Pitcher, and G. C. Shattuck were appointed such committee.

Dr. Blatchford stated that he had received from Dr. Willard, Secretary of the New York State Medical Society, fifty volumes of their Transactions for 1858, for distribution to the medical press, the medical colleges, and all medical societies of the South, and sent with a request

for an interchange of civilities. Gentlemen present can be supplied by application to Dr. Bemiss; and if the number sent be not sufficient for the supply, they will be cheerfully forwarded to any gentleman by application to the Secretary, Dr. S. D. Willard, Albany, N. Y., the postage being included in the application, which is twenty-two cents.

A report from Dr. Thomas Logan, of California, on Medical Topography and Epidemics, was received, and referred to the Committee on Publication.

The chairman of the Committee on Voluntary Essays stated that he had received a paper on a case of extra-uterine foetation from Dr. Enos Hoyt, of Transylvania, Mass., and another on a case of accidental poisoning by strychnine from Dr. Douglas Bly, of Rochester, N. Y. He also presented a very voluminous paper entitled "Observations on some of the Changes of the Solids and Fluids in Malarial Fever, by Joseph Jones, Professor of Medical Chemistry, in the Medical College of Georgia, at Augusta." By request, Prof. Jones gave a verbal abstract of his paper and an exposition of his theory, and on motion of Dr. D. W. Yandell the communication was referred to the Committee on Publication.

Dr. D. W. Yandell announced that the following railroad companies had agreed to pass delegates to this Convention over their roads at half price: Pittsburg, Fort Wayne, and Chicago; Pennsylvania Central; Jeffersonville; New Albany and Salem; Louisville and Nashville, and Cleveland and Pittsburg.

On motion, a vote of thanks was tendered to these companies for their liberality.

Dr. J. B. Flint offered the following resolution:

"*Whereas*, Our brethren of Great Britain are engaged in erecting a monument to the memory of John Hunter, whose invaluable services in behalf of Physiology and Surgery are recognized and honored, as well on this side of the Atlantic as in Europe; and whereas, this Association, as the representatives of American Medicine, would rejoice in some suitable manner to participate in so grateful a testimonial of gratitude and respect: Therefore,

"*Resolved*, That a committee of three be appointed to consider in what manner this participation can best be effected, so as to be acceptable to our British brethren, and consistent with our means and opportunities of action, with instructions to report at the next annual meeting."

The resolution was adopted, and Drs. Flint, Bowditch, and Shattuck appointed as the committee.

Dr. Harvey Lindsly offered the following:

"Whereas, Parliamentary rules of order are numerous, complicated, sometimes obscure, and often inapplicable to such a body as the American Medical Association; and whereas, from the nature of the pursuits of medical men, they cannot be familiar with these rules: Therefore,

"Resolved, That a select committee of three members be appointed to prepare a system of rules for the government of this Association, as few in number, as concise and as perspicuous as possible, to be reported at the next annual meeting."

This resolution was adopted, and Drs. Lindsly, Comegys, and Blatchford appointed as the committee.

The paper of Dr. Bly, on Accidental Poisoning by Strychnine, was read by its author; and, as individual cases are not reported in the Transactions of the Association, (except as illustrations of principles,) thanks were returned for the communication, with a request that it be published in some medical journal.

An invitation from Grand Master Morris, of the Masons, was received, urging medical brethren to attend the Masonic Convention now in session in this city.

The Nominating Committee made the following report:

The next annual meeting to take place at New Haven, on the first Tuesday of June, 1860. Dr. Eli Ives is elected Junior Secretary.

Committee of Arrangements—Drs. Chas. Hooker, Stephen G. Hubbard, and Benjamin Silliman, Jr., with power to add to their numbers.

Committee on Prize Essays—Drs. Worthington Hooker, Conn.; G. C. Shattuck, Mass.; Usher Parsons, R. I.; P. A. Jewett, Conn., and John Knight, Conn.

Committee on Publication—Drs. F. G. Smith, Philadelphia, Pa.; Wister, do.; Bemiss, Louisville, Ky; Ives, New Haven, Conn.; Hollingsworth, Philadelphia, Pa., and Askew, Wilmington, Del.

Committee on Medical Literature—Drs. Henry Campbell, Ga.; D. F. Wright, Tenn.; G. Wendell Holmes, Mass.; S. C. Armor, Ohio, and W. H. Byford, Ill.

Committee on Medical Education—Drs. D. M. Reese, N. Y.; W. R. Bowling, Tenn.; Chas. Fishback, Ind.; John Bell, Penn.; Z. Pitcher, Mich.

The following Special Committees were appointed:

On Morbus Coxarius, and Surgical Pathology of Articular Inflammation—Dr. Lewis A. Sayre, of New York.

On the Surgical Treatment of Strictures of the Urethra—Dr. James Bryan, of Philadelphia.

On Drainage and Sewerage of Large Cities, their Influence on Pub-

lic Health—Drs. A. J. Semmes, D. C., Chairman; Cornelius Boyle, and G. M. Dove.

On Puerperal Tetanus, its Statistics, Pathology, and Treatment—Dr. D. L. McGugin, of Keokuk, Iowa.

On Hospital Epidemics—Dr. R. K. Smith, of Philadelphia.

On Puerperal Fever—Dr. S. N. Green, of Stilesville, Ind.

On Anæmia and Chlorosis—Dr. H. P. Ayres, of Fort Wayne, Ind.

On Veratrum Viride—Dr. James B. McCaw, of Richmond, Va.

On Alcohol—Its Therapeutical Effects—Dr. J. R. W. Dunbar, of Baltimore, Md.

On Meteorology—Dr. J. G. Westmoreland, Atlanta, Ga.

On Milk Sickness—Dr. Robert Thompson, Columbus, Ohio.

On Manifestations of Disease of Nerve Centres—Dr. C. B. Chapman, Wisconsin.

On the Medical Topography of Iowa—Dr. T. O. Edwards, Iowa.

On Microscopic Observations on Cancer Cells—Dr. Geo. D. Norris, New Market, Ala.

On the Philosophy of Practical Medicine—Dr. James Graham, Cincinnati, Ohio.

On some of the Peculiarities of the North Pacific, and their Relations to Climate—Dr. Wm. H. Doughty, Ga.

The following Special Committees were continued or altered:

On Microscope—John C. Dalton, Jr., N. Y.; David Hutchinsen, Ind.; A. R. Stout, Cal.; Calvin Ellis, Mass.; Christopher Johnson, Maryland.

On Diseases and Mortality of Boarding Schools—Dr. C. Mattingly, Ky., and Dixie Crosby, N. H.

On the Various Surgical Operations for the Relief of Defective Vision—Drs. M. A. Pallen, Mo.; T. J. Cogley, Ind., and W. Hunt, Penn.

On the Blood Corpuscle—Dr. A. Sager, Michigan.

On American Medical Necrology—Dr. C. C. Cox, Maryland.

On the Hygienic Relations of Air, Food, and Water, the natural and artificial causes of their impurity, and the best methods by which they can be made most effectually to contribute to the public health—Dr. C. C. Cox, Maryland.

On the Effect of Virus of Rattlesnakes, &c., when introduced into the System of Mammalia—Dr. A. S. Payne, Virginia.

On the Climate of the Pacific Coast, and its modifying Influences upon Inflammatory Action and Diseases generally—Dr. O. Harvey, California.

On the Constitutional Origin of Local Diseases and the Local Origin of Constitutional Diseases—Drs. W. H. McKee, North Carolina, and C. F. Heywood, New York.

On motion of Dr. Brodie, Dr. A. J. Semmes was requested to serve as Secretary *pro tem.* during the remainder of the session.

The Association took up the special order, being the report on Medical Ethics, to which had been referred the action of the Dubuque Medical Society, which, after debate, was laid over until 12 o'clock to-morrow.

On motion of Dr. H. F. Campbell, a section of meteorology, medical topography, and epidemic diseases, and of medical jurisprudence and hygiene, was added to those already adopted by this Association.

The Association then proceeded to consider and act upon amendments to the Constitution proposed at the last annual meeting, and laid over under the rules. The following amendment was adopted:

“Resolved, That the Constitution of this Association be so amended as to provide that no individual who shall be under sentence of expulsion or suspension from any State or local medical society, of which he may have been a member, shall be received as a delegate to this body, or be allowed any of the privileges of a member, until he shall have been relieved from said sentence by such State or local society.”

The next amendment, lying over from last year, was the proposition of Dr. Kyle, of Ohio:

That the Constitution of the Association be so amended as to prohibit the admission as a delegate, or the recognition as a member, of any person who is not a graduate of some respectable medical college.

This amendment was rejected, but, on the question of reconsideration, a long and animated debate ensued. Without arriving at a vote, the Association adjourned.

AFTERNOON SESSION.—The Association was called to order at 3 p. m., Dr. M. F. Askew in the chair. The discussion on the amendment under consideration at the time of adjournment was renewed.

Dr. Kincaid moved a further amendment, to insert the word “hereafter” after “prohibiting.”

The chair ruled the amendment out of order at the present stage, or until the Association decide upon the question of reconsideration.

After a long discussion, Dr. Davis, of Ind., moved to lay the motion to reconsider on the table, which was carried, 97 yeas, nays not counted; so the amendment stands registered.

The next proposed amendment to the Constitution was that suggested by the New Jersey Medical Society, asking for such changes

as would establish a Board of Censors in every judicial district of the Supreme Court, who should examine and grant diplomas to all proper members of the Association.

This was temporarily laid on the table, for Dr. Crosby to offer a report of the Medical Teachers' Convention, which met on Monday last. He strongly recommended a committee from this body to confer with the Teachers' Committee, and felt great confidence that something beneficial to medical education would be the effect of such conference.

Dr. Comegys moved the appointment of a committee of five to confer with the committee of Medical Teachers and report at the next annual meeting, provided that no medical teacher be selected on the part of this Association.

Dr. T. M. Blatchford, of New York, offered as a substitute the following preamble and resolution:

"Whereas, Of all the subjects which can engage our attention in our associate capacity, that of Medical Education is paramount; and *Whereas*, harmony of action is essential to success in establishing definite qualifications entitling to admission in our ranks; and *Whereas*, nothing can be gained by hasty action in a matter so vital to our very existence, as a permanent Medical Institution: Therefore,

"Resolved, That further action be suspended for the present upon the subject of the resolutions offered at the last meeting of the Association by the chairman of the Special Committee on Medical Education, and that a committee, consisting of S. W. Butler, of Pennsylvania, L. A. Smith, of New Jersey, Dixie Crosby, of New Hampshire, C. A. Pope, of Mo., and T. Buckler, of Maryland, shall be appointed to confer with the committee appointed at the meeting of Medical Teachers, to report some plan for action at the next meeting of the Association."

This amendment was lost, and the original resolution adopted.

The resolutions from the New Jersey Medical Society were then taken from the table and referred to the Committee of Conference.

Dr. Davis offered a resolution instructing the same committee to confer with the State Medical Societies for the purpose of procuring more decisive and uniform action throughout the profession in carrying into effect the standard of preliminary education adopted by this Association, at its organization in 1847. This was carried.

Dr. Gibbs, from the committee to examine into a plan of uniform registration of births, marriages, and deaths, offered the following report:

They have given the same a careful consideration, and they unanimously recommend that the report be adopted, and referred to the Committee on Publication.

They also recommend that the same committee be continued, with

instructions to add to the report, in time for publication in the ensuing volume of Transactions, a form of registration law which may be likely to answer the requirements of the several States.

Dr. Sayre, of New York, offered the following:

"*Whereas*, The medical profession at large have an interest in the character and qualifications of those who are to be admitted as their associates in the profession: Therefore,

"*Resolved*, That each State Medical Society be requested to appoint annually two delegates for each college in that State, whose duty it shall be to attend the examinations of all candidates for graduation; and that the colleges be requested to permit such delegates to participate in the examination, and vote on the qualifications of all such candidates."

This was, on motion, referred to the Committee of Conference.

The paper of Dr. Jones, presented at the morning session, was taken from the Committee on Publication and referred to the Committee on Prize Essays.

Dr. Eve moved to record the name of Dr. Benj. W. Dudley, as a permanent member, which was adopted by a unanimous vote, the delegates all rising to their feet in token of respect.

Adjourned till to-morrow morning, at 9 o'clock.

THURSDAY, May 5, 1859.

The President called the Association to order at nine o'clock, and the reading of the minutes of yesterday was dispensed with.

The first business in order was an amendment to the Constitution, laid over from last year, and proposed by Dr. T. L. Mason, of New York, to insert in the first line of the second paragraph of Article II., after the words "shall receive the appointment from," the words "any medical society permanently organized in accordance with the laws regulating the practice of physic and surgery in the State in which they are situated, and consisting of physicians and surgeons regularly authorized to practice their profession." Also, to add to the sixth paragraph of the same article the words "but each permanent member of the first class designated in this plan of organization shall be entitled to a seat in this Association, on his presenting to this body a certificate of his good standing, signed by the Secretary of the society to which he may belong at the time of each annual meeting of this body."

Dr. Lyndon A. Smith, of New Jersey, said amendments to the Constitution should be adopted with care; and though, perhaps, that now proposed might be desirable, still, as Dr. Mason, who had proposed

it, was not present to explain his views, he moved that the subject be laid over until next year. This suggestion was adopted.

Another constitutional amendment, proposed by Dr. Henry Harts-horne, of Pennsylvania, and laid over from last year under the rules, provides to add to Article II. the words: "No one expelled from this Association shall at any time thereafter be received as a delegate or member, unless by a three-fourths vote of the members present at the meeting to which he is sent, or at which he is proposed."

This amendment was adopted.

Another amendment, proposed by J. Berrien Lindsly, of Tennessee, was called up, to omit in Article II. the words "medical colleges, hospitals, lunatic asylums, and other permanently organized medical institutions in good standing in the United States;" and also to omit the words: "The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more shall have the privilege of sending two delegates; and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate."

This was laid on the table until the next annual meeting.

An invitation was received from Mons. Groux, requesting the delegates to meet him at the hall of the University at noon to-day, to witness experiments on his congenital fissure of the sternum, which was deferred until four o'clock this afternoon, as the Association had previously accepted the hospitality of Mr. and Mrs. Robert J. Ward at the former hour.

Dr. McDermott submitted the following resolutions:

"*Whereas*, A vast proportion of the disease and misery that afflict our race is caused by the excessive use of intoxicating liquors; and *whereas*, in the opinion of this Association, the evils of intoxication can be most effectually remedied by the establishment of Inebriate Asylums, wherein the victims of intemperance may be subjected to such restraints and treatment as shall effect a thorough reformation of their habits: Therefore,

"*Resolved*, That this Association recommend the establishment of inebriate asylums in the various States of the Union.

"*Resolved*, That the State and County Medical Societies, and all members of the medical profession, be requested to unite in diffusing among the people a better knowledge and appreciation of the beneficent purposes and important benefits that would be conferred upon society by the establishment of such asylums throughout the various sections of the country."

This resolution was referred to the mover, as a Special Committee, with a request that he would report thereon at the next meeting of the Association.

Dr. Shattuck offered the following, which was adopted:

"Resolved, That the committee appointed in May, 1857, on Criminal Abortion, be requested to continue their labors, and especially to take all measures necessary to carry into effect the resolutions reported by them on the first day of the meeting."

Dr. Yandell, from the Committee on Voluntary Essays, made a further report that a communication had been received from Dr. Langer, of Iowa, on Subcutaneous Injections as Remedials, which, on motion, the author read.

The essay was referred to the writer as a special committee, with the request that he would report further at the next annual meeting of the Association, and continue his investigations.

Invitations to visit the Insane Asylum and the Library and Museum of Transylvania University were received.

The President appointed as the Committee of Conference, to meet the committee from the Teachers' Convention, the following gentlemen: Drs. Blatchford, Troy, N. Y.; Condie, Philadelphia, Pa.; Bozeman, Montgomery, Ala.; Brodie, Detroit, Michigan; and Sneed, Frankfort, Ky.

Dr. D. Meredith Reese, from the Nominating Committee, made the following final report:

Special Committees continued.

On Quarantine.—Drs. D. D. Clark, Penn.; Snow, R. I.; Jewell, Penn.; Fenner, La.; and Houck, Md.

On Medical Ethics.—Drs. Schuck, Penn.; Murphy, Ohio; Linton, Mo.; Powell, Ga.; Eve, Tenn.

On Tracheotomy in Membranous Croup.—Dr. A. V. Dougherty, N. J.

On Mercurial Fumigation in Syphilis.—Dr. D. W. Yandell, Louisville, Ky.

On the Improvements in the Science and Art of Surgery, made during the last Half Century.—Dr. Jos. McDowell, St. Louis, Mo.

On the Cause and Increase of Crime, and its Mode of Punishment.—Dr. W. C. Sneed, Frankfort, Ky.

On the Education of Imbecile and Idiotic Children.—Dr. H. P. Ayres, Fort Wayne, Ind.

On the Uses and Abuses of the Speculum Uteri.—Dr. C. H. Spillman, of Kentucky.

On the Topography of Vermont.—Dr. Perkins, of Vermont.

On the Pons Varolii, &c.—Dr. S. B. Richardson, of Kentucky, and Dr. Fishback, of Indiana.

On the Physiological Effects of the Hydro-Carbons.—Dr. F. W. White, of Illinois.

On the Effect of the Perineal Operations for Urinary Calculi upon Procreation in the Male.—Dr. J. S. White, of Tennessee.

The paper from Dr. Ellis, of Massachusetts, on the subject, "Does the microscope enable us to make a positive diagnosis of cancer, and what, if any, are the sources of error?" was referred to the Special Committee on the Microscope, of which Dr. Dalton is chairman.

On motion, the report was adopted as a whole.

Honorary resolutions were passed to the memory of the following members of the Association, deceased: Dr. W. W. Boling, of Alabama; Dr. Thomas D. Mütter, of Penn.; Dr. P. C. Gaillard, of S. C.; Dr. Jabez G. Goble, of New Jersey; Dr. John K. Mitchell, of Tenn.

Dr. R. K. Smith, of Philadelphia, submitted the following:

"*Resolved*, That the death of Dr. John K. Mitchell, one of the members of this Association, has been to this body a loss keenly felt by every man who knew him. His eminence as a teacher, his varied acquirements in every department of learning, and his generous social qualities in every relation, endeared him to every member of the profession who had the pleasure of his personal acquaintance.

"*Resolved*, That the family be notified of the action of this Association."

Other more formal resolutions were offered, and feeling eulogies pronounced.

Dr. Sayre offered the following, which were adopted by acclamation:

"*Resolved*, That the thanks of the American Medical Association are eminently due and are hereby presented to the citizens of Louisville, Ky., for the princely hospitality publicly and privately extended to the members of this body during its present session.

"*Resolved*, That to the Committee of Arrangements and the profession of Louisville, generally, our thanks are due for their kind and assiduous attention to the Association, and for the hearty welcome with which they have greeted our convention in their flourishing city."

After the transaction of some other unimportant routine business,

On motion of Dr. Davis, the Association adjourned, to meet at New Haven, on the first Tuesday in June, 1860.

Convention of Medical Teachers.

MORNING SESSION.—At a meeting of the last National Medical Convention, held in Washington City, it was *Resolved*, That there should be a National Convention of the Teachers from the Medical Colleges in the United States, and that they should meet in the city of Louisville, Ky., the day before the meeting of the National Medical Convention. In accordance with this resolution, they met on Monday morning, May 2, 1859, at Mozart Hall.

After prayer by Rev. J. H. Heywood, Dr. Dixi Crosby, Professor of Surgery in Dartmouth College, N. H., was called to the chair, and Dr. George C. Blackman, of Ohio, appointed Secretary.

Dr. Crosby returned his thanks to the Convention in a neat and appropriate speech.

Dr. D. F. Wright offered the following resolution:

“*Resolved*, That all members of the Faculties of Medical Colleges, now present, shall be considered members of this Convention; but that when more than one from the same College is present, but one of them shall cast the vote of that institution.”

A substitute was offered by Dr. Baker, of Ohio, that a committee of three, on credentials, be appointed by the chair. This substitute for the original resolution was then carried, and the chair appointed the following gentlemen to serve on that committee: Dr. Shattuck, from Massachusetts, Dr. Haskins, from Tennessee, and Dr. Baker, from Ohio.

The Convention then adjourned for thirty minutes, to allow the Committee on Credentials time to report. At the expiration of the time, the committee reported the following colleges as represented, with the gentlemen as delegates:

Dartmouth College, N. H.—Prof. Dixi Crosby. *Shelby Medical College, Tenn.*—Profs. E. B. Haskins and D. F. Wright. *Missouri Medical College.*—Prof. J. H. McDowell. *St. Louis Medical College.*—Prof. N. L. Linton. *Medical College of South Carolina.*—Prof. H. R. Frost. *Medical College of Georgia, Augusta.*—Prof. H. F. Campbell. *Medical Department of the University of Michigan.*—Prof. Moses Gunn. *University of Louisville, Medical Department.*—L. P. Yandell and L. Powell. *Cincinnati College of Medicine and Surgery.*—Prof. H. Baker. *Jefferson Medical College, Philadelphia.*—Profs. Robly Dunglison and Franklin Bache. *Lind University of Chicago.*—Prof. N. S. Davis. *Oglethorpe Medical College, Georgia.*—Prof. A. G. Thomas. *Medical College of Ohio.*—Prof. Geo. C. Blackman. *Kentucky School of Medicine.*—Profs. M. Goldsmith and Geo. W.

Bayless. *Iowa University*.—Prof. McGugin. *Medical College of Memphis*.—Prof. H. R. Robards. *Medical College of Virginia, Richmond*.—Profs. B. R. Welford and L. S. Joynes. *Atlanta Medical College, Georgia*.—Profs. J. G. Westmoreland and John W. Jones. *Medical Faculty of Harvard University at Boston*.—Prof. Geo. C. Shattuck. *Rush Medical College, Chicago, Ill.*—Profs. Daniel Brainard and Joseph W. Freer. *Western Reserve Medical College, Cleveland, Ohio*.—Prof. G. C. C. Weber.

On motion, the report was received, and the committee allowed to report further the names of delegates during the day.

The next business in order was the election of officers for the permanent organization of the Convention

On motion, the officers of the preliminary meeting were declared elected.

Prof. Crosby, in taking his seat as President, said the Convention had derived one advantage from the re-election of the present officers, as they were spared being inflicted with additional speeches of thanks. He concluded by saying that, unless changed by the Convention, he had the authority to make rules for conducting business. He therefore ruled that no member shall speak longer than ten minutes, nor more than twice on the same subject.

A motion was offered by Dr. D. F. Wright, of Tenn., allowing all persons present from the different Medical Colleges to sit as members of this Convention. This was amended by Dr. Davis, of Chicago, by adding that no college should be allowed more than one vote on any proposition. This was carried.

Dr. Davis, of Ills., offered a resolution authorizing the appointment of a committee of five, as a Business Committee. This being carried, the President appointed the following gentlemen: Drs. Davis, of Ills., Gunn, of Michigan, Frost, of S. C., Shattuck, of Mass., and Yandell, of Louisville, Ky.

The Convention then adjourned for thirty minutes, to allow the committee time to prepare business.

At the expiration of the time, the committee reported six resolutions, which were accepted from the committee, and were, on motion, brought up in order. The following are the resolutions:

“*Resolved*, That this Convention recognize the great advantages to be derived from the action of the American Medical Association in prescribing the terms and conditions on which medical degrees shall be conferred and licenses to practice medicine shall be granted, and that any expression of opinion as to methods or periods of instruction

from the American Medical Association should be received with deference and respect, and that all pains should be taken to enforce any rules or regulations recommended by that body.

"Resolved, That this Convention earnestly recommends the American Medical Association to adopt such measures as will secure the efficient practical enforcement of the standard of the preliminary education, adopted at its organization in May, 1847, and that the Medical Colleges will cheerfully receive and record the certificates alluded to in said standard, whenever the profession generally, and the preceptors, will see that students are properly supplied with them.

"Resolved, That no Medical College should allow any term of practice to be a substitute for one course of lectures in the requisitions for graduation.

"Resolved, That hospital clinical instruction constitutes a necessary part of medical education, and that every candidate for the degree of Doctor of Medicine should be required to have attended such instruction regularly for a period of not less than *five months*, during the last year of his period of pupillage.

"Resolved, That every Medical College should rigidly enforce the rule requiring three full years of medical study before graduation, and that the diploma of no Medical College shall be recognized which is known to violate this rule."

The first resolution created some degree of excitement, and provoked considerable debate, when the Convention adjourned until three o'clock.

AFTERNOON SESSION.—The debate still continued on the first resolution, as reported in the forenoon. Dr. Bayless, who had the floor at the time of adjournment, offered the following amendments: to substitute, in the fourth line, the word "recommended" for "prescribe," and all after the words "deference and respect" be stricken out.

The debate on this resolution still continued warm, most of the gentlemen participating, when Dr. Joynes offered the following as a substitute:

"Whereas, It appears that a large portion of the Medical Colleges of the United States are unrepresented in this Convention; that no changes in the present system of education can be effected unless adopted by the schools generally:

"Resolved, That it is inexpedient at this time to take any action upon the propositions contained in the report presented by the Special Committee on Medical Education at the last meeting of the American Medical Association.

"Resolved, That with the view of obtaining a more general union in counsel and action upon this important subject, this Convention do now adjourn, to meet again on the day preceding the next annual meeting of the Medical Association, and at the place which may be agreed upon for such meeting, and that the several Medical Colleges

in the United States be requested to appoint each a delegate to such adjourned meeting of this Convention."

An amendment was offered by Dr. Wright, by adding another resolution to the effect that a committee be appointed to examine the different propositions offered. The vote of the Colleges being called on this resolution, the vote stood ten for the substitute and nine against.

The following gentlemen were appointed by the chair to serve on that committee: Dr. L. P. Yandell, of Louisville; Dr. G. Shattuck, of Massachusetts; Dr. G. C. Blackman, of Ohio; H. F. Campbell, of Georgia; Dr. M. Gunn, of Michigan.

The meeting was then adjourned.

SELECTIONS.

Hypophosphite of Quinine.—A New Remedy proposed by J. LAWRENCE SMITH, M.D., Professor of Chemistry, University of Louisville.

The recent recommendation by Dr. Churchill, of the use of the hypophosphites in the treatment of phthisis, is now undergoing a general test by the medical profession; and so far as reported upon, there appear to be different opinions in regard to their efficacy. Some speaking of them with much praise, while others see but little benefit from their use. In one thing all agree—that no injurious effect arises from their administration.

From my own observation and inquiry, patients using the hypophosphites, either in their solid form or their syrup or glycerole, have experienced marked relief from many of the annoying symptoms attendant upon phthisis.

The special object of this note is to bring to the attention of the medical profession a new combination of hypophosphorous acid, which I have lately had made at the Louisville Chemical Works, namely, the *hypophosphite of quinine*.

It was first made by adding an excess of recently precipitated quinine to a hot solution of hypophosphorous acid, and on cooling, the salt crystallizes out in beautiful silky tufts, which, when dry and broken up, resemble asbestos in appearance. The method adopted and proposed for making it on a large scale is by double decomposition; using the sulphate of quinine and the hypophosphite of baryta, the operation must be conducted so that there shall be no excess of either salt in the solution; the solution is filtered from the sulphate of baryta, concentrated and allowed to crystallize, which it does in the manner already mentioned.

The salt thus obtained is in delicate fibrous crystals, soft to the touch; they are of a beautiful silky lustre, very soluble in hot water; one ounce of cold water at 60° Fahr. dissolves 8 grains of the salt. When heated, it loses its water at about 230°, and at about 300° it turns brown and melts.

Proposed Uses.—If the preparations of hypophosphorous acid are useful in phthisis and analogous diseases, then its combination with quinine must be beneficial in those phases of these diseases where quinine is at all recommended. I would therefore suggest its use in the hectic fever of phthisis; also as a tonic in the same disease; also in the various forms of cachexy where quinine is used.

Nor ought its use to stop here, for owing to its solubility in water, it can be readily administered in that menstruum, (say 5 grains to the ounce of water,) thus becoming useful for children, and also in compounding, where the presence of an acid is objectionable, as is now necessary in dissolving the sulphate. In the form of pill it would be more soluble in the stomach than the sulphate.

With these few hints I leave the article to the medical profession to be fairly tried, feeling confident that its solubility alone will be sufficient to make it an important addition to our materia medica.—*Louisville Med. News.*

On the Treatment of Hooping-Cough by Diluted Nitric Acid. By JOHN ATCHERLEY, M.R.C.S., Eng.

I wish to direct the attention of the profession to the diluted nitric acid in the treatment of hooping-cough. It has already been employed in hooping-cough to some extent, and was first recommended some years ago, by Dr. Arnold, of Montreal.

Having had abundant opportunities during the last two years of testing its efficacy, I may be permitted to speak with some degree of confidence as to its value. I have confined myself exclusively to its use in every case I have had to treat throughout that period, and I can affirm that as the ordinary duration of hooping-cough has been computed to average ten weeks, in defiance of every method of treatment that had hitherto been adopted, the diluted nitric acid effects its removal in less than three weeks, except in cases where its course has been interrupted by some serious complications.

Any medicine capable of abridging the duration of a disease whose fatality is in proportion to its continuance, must be of incalculable value; and I am convinced that when it becomes more generally used, it will meet with the concurrence of the profession, and will hold a high place, and be the cardinal remedy, if not supersede all other medicines in hooping-cough.

In prescribing the diluted nitric acid, I usually begin with five-minim doses every three hours, say for a child six months old, and gradually increase the dose, in proportion to the age, to fifteen minims every second hour, should the paroxysms become aggravated, or of more

frequent recurrence. When the intervals become lengthened, which generally happens after the second day, the medicine may be given less frequently; but it is of importance that the acid should be continued ten days after all symptoms of the disease have subsided. From the neglect of this precaution, I have seen the cough return with all its former violence, when the medicine has been abruptly discontinued; therefore it should be given in moderate doses three times a day after all traces of the affection have passed away.

The form I generally use is the one originally suggested, viz., diluted nitric acid, compound tincture of cardamoms, syrup and water. This is always taken without the slightest reluctance, as it is agreeable to the taste—a great consideration in prescribing a medicine for children which requires to be continued for some length of time.

In conjunction with the above treatment I have invariably employed a stimulating embrocation to the back and chest night and morning, consisting of one ounce of camphor liniment, and two drachms of spirits of turpentine.

Of course, it is necessary, as in all diseases of the respiratory organs, that proper attention should be paid to the state of the bowels, regulation of temperature, clothing, and diet. I have also seen great benefit derived from the inhalation of the fumes of burning nitre-paper; two pieces of about four inches square are burnt in the bedroom on retiring to rest, and one piece burnt occasionally in the room occupied by the child in the daytime, appears to shorten the paroxysm, and to deprive it in a great measure of its spasmodic character, rendering it more like the cough of ordinary catarrh. Chloroform is the best anti-spasmodic that can be used during the fit, but parents have a great dread of its effects, unless administered by the medical attendant; but, from the apparent simplicity in the fumes of burning nitre-paper, they are readily induced to give it a trial.—*Medical Times and Gazette*.

On the Otorrhœa of Young Children. Translated for the Boston Medical and Surgical Journal, from the *Journal für Kinderkrankheiten*.

Otorrhœa, or a discharge or running from the ear, consists, in very many cases, of merely a chronic inflammation of the external passage of the ear, which has given rise to an increased secretion. The inflammation is usually confined to the external portion of the meatus, but sometimes extends to the surface of the membrane of the tympanum. The disease is most frequently observed in children, although it is not rare in adults. In the former, it is generally accompanied by a tendency to glandular engorgements, with symptoms of general debility; in adults, it is also the sign of a depressed condition of health. The exciting cause may be a blow upon the ear, the employment of irritating local applications to the ear, or any acute inflammation of the lining membrane of the meatus; but the most frequent causes are scarlet fever, measles, or catarrhs. Often no cause can be discovered; the children complain of a slight irritation in the ear,

which they seek to allay by introducing the finger, or a little stick, and the irritation disappears when the discharge begins. Sometimes, however, the discharge is the first symptom of the disease. In the early stages, the hearing is only slightly diminished by the disease, even when the inflammation and swelling extend to the external surface of the membrane of the tympanum; but when the disease has existed for any length of time, the membrane itself participates in it, and dullness of hearing, or deafness, ensues. Moreover, it must be borne in mind that catarrh of the meatus and external surface of the tympanum is often but a symptom of irritation *within the tympanum*, and ceases as soon as this irritation is removed. After the disease has existed some time, there is often considerable irritation of the meatus, amounting, at times, to acute pain, with occasionally slight hæmorrhage. Hæmorrhage is more frequent, however, when there is a polypus in the meatus.

On examination of the meatus, its lining membrane is found to be thicker than usual, and sometimes so much so as to close the passage entirely. In many cases the membrane is red, and destitute of epithelium; on the other hand, it is frequently white, and covered with a thick epithelial layer. The secretion is generally very foetid, of various colors: sometimes of a milk-white; at others, of a dark slate color; and, whatever its quantity, color, or consistence, it never contains flocculi, but, when mixed with water, renders it cloudy.

It need hardly be said that polypus sometimes exists along with chronic catarrh of the meatus. In such cases there is bleeding from the ear, and flocculi are found in the secretion. The latter are also found when there is ulceration of the fibrous tissue of the membrana tympani, in which case blood is often mixed with the secretion. If the catarrhal inflammation extends to the mucous membrane of the membrana, the latter becomes, like the meatus, thickened, and often very much congested. The membrane then loses its natural color and form; if we are able to employ a speculum, the outer surface is seen to be flatter than usual, and, in consequence of its thickening, neither the long nor the short process of the stapes is visible.

In the *treatment* of catarrhal otorrhœa, it is of the first importance to remove the secretion, and keep the meatus clean. This is best done by frequent syringing with lukewarm water. If there be so much pain or tenderness that the syringe cannot be used, one or two leeches must be applied to the outer edge of the meatus, followed by warm fomentations or poultices, or the vapor of warm water may be directed upon the ear. After all tenderness is removed, and the meatus cleansed from the secretion, weak astringent solutions should be injected, and moderate counter-irritation applied to the mastoid process. These simple means, in connection with remedies for improving the general health, especially tonics, suffice, in very many cases, for curing the discharge. In very obstinate cases, the counter-irritation to the mastoid process must be maintained, so as to keep up an artificial discharge, which is best done by means of croton oil; and a strong solution of nitrate of silver (ten to forty grains to the

ounce) should be thrown into the meatus every third day, by means of a glass syringe.

There are cases, however, which resist this treatment, the discharge continuing unchanged for two or three months. The treatment should then be steadily persevered in, as it may at least prevent ulceration of the membrane of the tympanum, caries of the bones, and the development of polypi.

EDITORIAL AND MISCELLANEOUS.

—Sanitary Science in general, and Quarantine in particular, have been the topics of interest of the month. The Sanitary Convention, composed of physicians, delegates from various medical societies, and an equal number of civilians from the Councils and Boards of Health of most of the seaboard cities of our country, held its third annual meeting in this city the last days of April.

The Convention included a fair representation of those men in and out of the profession who have made sanitary affairs a study; the great majority, however, of the active participants in the discussions before the Convention were medical men, so that it was, to all intents, a medical body.

Dr. Griscom, the Chairman elect, in his inaugural address, stated the object of the Convention to be twofold: the external sanitary police of cities, and the internal hygiene of society. To the first, however, the action of this meeting of the Convention mainly tended, although the chairman showed by an array of figures the far greater necessity of a more rigid attention to the latter. In this city, he said, the loss of life from yellow fever, against which the barriers of Quarantine are raised, had been for the last fifty years only 600, while each year the mortality from those diseases which a close attention to the laws of private hygiene would entirely check or greatly diminish, has been numbered by thousands.

The principal, and about the only discussion, arose from the report on Quarantine, and upon one point in relation to this subject there was a remarkable unanimity of opinion, which was embodied in a resolution by Dr. Stevens, to the effect that in the opinion of the Convention "the personal quarantine of yellow fever may be safely abolished."

The report of the committee was mainly adopted, but a portion of it which found all existing systems of Quarantine defective, and of lit-

the beneficial use, was warmly opposed, and finally referred back to the committee. The committee, as a whole, not amending the report, a series of resolutions were passed advising the continuance of Quarantine throughout the year, and recommending the more careful attention to hygiene on board vessels.

A code of sanitary laws for cities, prepared by Dr. Clarke, of Boston, was also considered, and after much discussion and modification by a few amendments, was adopted by the Convention.

This body, although three years old, the first meeting having been held in Philadelphia in 1857, and the second, last year in Baltimore, is hardly yet in working order. Some unpleasant occurrences which happened at the preliminary meeting, in Philadelphia, threw some discredit upon the whole body; but we believe that the practical action of this meeting, and the respectable body which here assembled, has overcome all these objections, and we consequently look forward with many anticipations to the good to be accomplished by the proceedings of this body of sanitarians.

Public health is public wealth, and nothing but good can come from the agitation of sanitary matters, by a class of men who can present the most efficient argument to the people at large, for decided action upon the subject—the argument of self-interest. If the sanitarian will show to the community, by his statistics, the value of a rigid sanitary system, and not only show it once, but repeatedly, legislative action will soon be taken to accomplish all he desires. Herein we see the benefit of these yearly meetings; for yearly, the public mind will become interested in the subject, and eventually to some purpose.

As the subjects to be reported upon next year, including those of Food, City Cleanliness, Architecture with reference to Domiciliary Hygiene, and the Sale of Drugs and Poisons, are eminently practical and interesting, we expect the convention to be held next June, in Boston, will be more than usually attractive.

The Sanitary Association of New York, an organization which has arisen from the necessity of the day, and the objects of which are reform in the affairs of the city relating to health, supplies, in its deliberations, the deficiencies of the convention. It, also, is composed of members of the faculty, and laymen; and to this combination is perhaps owing its efficient and decisive action.

At a recent meeting, Dr. Griscom read an Essay “On Light, its Influence upon the Human System in preserving Health and pro-

ducing Disease," detailing the baneful effects of dark cellars, dark offices, dark tenement houses, restaurants, parlors, school-rooms, &c., upon their occupants.

Finally, the Academy of Medicine, at its second meeting in May, listened to the deferred paper, by Dr. Harris, "On the Philosophy of Quarantine." The various systems of quarantine, adopted by different nations, were reviewed, and the policy of that existing in our own harbor was critically examined, and dealt with harshly, its inconsistencies pointed out, and its defects thoroughly probed. More stringent measures on board ship were recommended to be adopted, which might eventually supersede the necessity of a quarantine; but under existing circumstances, and until these sanitary regulations are made obligatory upon masters of vessels coming to this port, by legislative act, and this obligation enforced, a quarantine must be sustained.

The subject of the personal contagiousness of yellow fever is to be discussed at the next meeting of the Academy. Whatever action may be taken upon it, the Academy is too tardy. The Sanitary Convention and the Association are both more positive in their deliberations, and less conservative in their decisions, and have already acted upon this subject. The golden opportunity afforded the Academy to lead public opinion is lost. Now it can occupy only a secondary position, and must be content with the reputation of echoing an opinion already expressed by another body, if it adopts the spirit of the paper read by Dr. Harris. This arises from the element of pseudo-conservatism in its constitution, which so constantly modifies its actions. It would be well if this element could, in a great measure, be discarded, or a more healthy sentiment infused into it.

— The late date at which we received the *Semi-Monthly Medical News*, from which we copy the proceedings of the American Medical Association, prevents us from making any lengthened remarks upon the character of these transactions. Many articles prepared for this number have been crowded out, to make room for what we suppose the whole profession is anxious to see, the results of the annual meeting of the delegates to our National Association.

Two remarks we must make, however: one of deprecation, and the other, we are glad to say, of congratulation. We are sorry to notice such a falling off in the number of papers and reports from the Special Committees, for scarcely one, out of the great number appointed last year at Washington, fulfilled their pledge, given when they accepted the nomination, to report. The failure to find an Essay worthy the

prize among those contending for it, is another fact deplorable to mention. The interest in the Association must be flagging, or else there are radical defects in its operations. In either event, it becomes those who are more intimately associated with its workings by the tenure of their office to look into this subject, and to search for some method by which other failures will hereafter be prevented.

We think there is cause for congratulation in the probable effect of the plan proposed for the division of the Association into sections, in order to facilitate the transaction of business. The plan has been adopted by the American Association for the Advancement of Science, and its efficiency satisfactorily tested. The interest in the Association, we do not doubt, will be greatly increased; for then those who have no desire to quibble on points of order, or to listen to a fine-spun debate upon some captious ethical disagreement, can enter the sections and hear the papers and debates. This will be something to travel a thousand miles for; but as now constituted, the journeying is done to little other purpose than to listen to speeches of organization, and to attend the feasts appointed for the time. In this movement we see, therefore, a cause for congratulation, and a safeguard for the active continuance of the Association.

—We are not in the least disappointed in the result of the Convention of Teachers. Our views upon this subject were given at some length in the April No. of the MONTHLY, and we shall, therefore, not reproduce them here. The failure in nearly all the larger institutions to send delegates looks almost like a concert of action, but this we do not credit; we rather attribute it to the indifference resulting from a want of confidence in any tangible result to be effected by this Convention. Had much been expected, we doubt whether a College in the country would have been unrepresented.

—The professorial changes in the medical colleges of the country have been quite numerous this spring. Besides the establishment of the new Lind University, mentioned in our last number, which required a resignation, on the part of several members of its faculty, of their former connection with the Rush Medical College, we have heard mentioned the formation of two other new institutions: one under the very euphonious title of the University of the Pacific, which is already in operation, with a full complement of professors; and the other to be located in Mobile, Ala. The faculty of the latter has not yet been announced; but it is said Dr. J. C. Nott is to occupy the chair of Surgery.

Among the resignations we may place Dr. B. F. Barker, of the chair of Obstetrics, and Dr. T. Childs, of the chair of Anatomy, in the New York Medical College. Their successors are not yet announced, though several names are mentioned in this connection.

Prof. Geo. B. Wood has retired from the Pennsylvania Hospital, and Dr. F. G. Smith has been elected to succeed him. Dr. Wood has also signified his intention to resign the chair of Practice in the University of Pennsylvania, at the close of the next course of lectures.

The whole faculty of the Pennsylvania Medical College have resigned *en masse*, and the faculty of the Philadelphia School of Medicine have been elected to supply the vacuum, merging, as it would seem, the two schools into one.

At Albany, Drs. Hun and Dean have both resigned. To supply their chairs, Prof. Howard Townsend unites Physiology with Materia Medica, and Prof. Quackenbush, Medical Jurisprudence with Obstetrics.

Prof. J. G. Howard retires from the chair of Anatomy in the Savannah Medical College, and Dr. W. R. Waring has been appointed to fill the vacancy.

Among the new appointments we may signalize that of Dr. Austin Flint, Jr., to the chair of Physiology and Microscopy; and of Dr. Sanford Eastman to the chair of Anatomy. These two chairs were formerly united in one, under the professorship of Dr. S. B. Hunt, who has resigned.

To the Medical College of South Carolina Dr. Geddings has returned, filling the vacancy occasioned by the death of Prof. Gaillard.

Dr. Geo. T. Elliott, Jr., has been appointed adjunct Professor of Obstetrics, and Dr. Thos. M. Markoe adjunct Professor of Surgery in the College of Physicians and Surgeons of this city.

— A copy of the *Transactions of the Medical Society of the State of New York* was placed in our hands early in the month. It was our intention to give a brief notice of each of the papers contained in this volume, but we have been obliged to defer it, on account of the publication of the proceedings of the American Association, which has crowded out this as well as other interesting matter prepared for our pages. The titles of the papers we have already given in the March No., when noticing the meeting of the Society. The volume which unites these papers is smaller than that of the preceding year, but is well illustrated, and has a great variety of interesting papers; among them will be found the republished transactions of the Society from 1807 to 1831 inclusive. We shall recur to this volume again.

— *On the Administration of Medicines to Children.*—M. Wahu having much to do with the diseases of children, wishes to impress upon practitioners the importance, in the case of important medicinal substances, having them administered, whenever practicable, in their own presence. He also states some of the means he adopts to enable certain medicines to be more easily got down. Thus, the subnitrate of *bismuth*, in large doses, which is of such value in diarrhœa and the gastro-intestinal affections of children, often subsides to the bottom of the spoon when given in broth or milk; and it is much more readily taken also by children of about two years old when given in chocolate prepared with water, and thickened with tapioca, or crumbs of bread. In this way seventy grains and more may be given night and morning. In the same way *iron* can be very readily given. *Ratany* and *catechu*, two precious drugs, the action of which, when in small doses, is soon manifested in children, can also very readily be given in this chocolate panada. Chocolate made with either milk or water, and flavored with canella or vanilla, is usually very readily taken by children, and its dark color facilitates the mixing of numerous colored medicinal substances, which would be observed by the little patients were they given in milk, broth, or any infusion. *Ratany* and *catechu* may also be well triturated and mixed with quince jelly, the flavor of which, while masking that of other substances, is very agreeable to children. *Sulphate of soda* and *sulphate of magnesia* are substances very difficult to get even adults to take. The sulphate of soda may often be administered to children, by dissolving 10 parts in 150 of unsalted beef-tea, and waiting until the child is sufficiently thirsty to swallow a cup of liquid almost without tasting it. For adults, the best means is to dissolve the sulphate of soda or magnesia in exactly the quantity of hot water necessary for its complete solution. This is allowed to get cold, and a glass of pretty strong lemonade is prepared. Holding a glass in each hand, that containing the salt is rapidly drank, and then the lemonade is slowly drank—masking the detestable taste of the purgative, and supplying enough fluid to prevent its proving too irritating. *Corsican moss* is another substance which children take with difficulty; but if an infusion be made and strained, and then added to unsalted beef-tea, it will be readily swallowed. *Calomel* is one of the most difficult medicines to give, when children are too young to swallow pills, which is the case under six years of age. Incorporating it in honey is the best means—rinsing the mouth afterwards, to prevent any adhering to the gums. It should never be given in currant, or any other jelly; a death having occurred a few years since from the conversion of the calomel given in currant jelly into a bichloride. It is safest to prohibit any acid drink being taken on the day that calomel is given. *Ipecac.* may be given either in the chocolate panada or in honey. When it is impossible to give any medicinal substance by the mouth, it may be administered by the rectum, taking care first to empty the gut by tepid water or an emollient decoction, and that the bulk of the medicated enema do not exceed from four to six ounces, so that it may be retained and absorbed. It should also be borne in mind that as some

substances, such as opium and other narcotics, are easily absorbed by the large intestine, doses less than would be given by the mouth must be employed. Quinine, on the contrary, requires to be doubled in quantity to be of any use. In forcing a child to swallow, the usual practice is to pinch the nose; but a part of the medicine will be rejected, if the precaution be not taken to keep the nares completely closed *until deglutition is completed*. So, too, when medicines are thus forced down a child, it must be kept the whole time in a *sitting posture*; until deglutition has been completely accomplished. A suffocative cough may be induced, if it be allowed to lie down again, still having some of the liquid in the mouth.—*Gaz. des Hôp.*, 1858, No. 78.

—*Mercury in the Early Days of Syphilis*.—During the ten years which followed the appearance of the *Neapolitan Disease*, physicians, surprised by the new malady, and terrified at its ravages, were not a little disconcerted. They treated it with repugnance, with hesitation and incertitude. While they were thus elaborating in their cabinets new curative methods, wherein astrology played no small part, the charlatans of the day, as usual, little respectful of theories, and more occupied with attempts at curing the disease than desirous of respecting Galen, made use of mercury in ointments and in lotions, with unheard-of boldness. The disastrous effects which followed this abuse of the remedy naturally led physicians to shrink from the employment of an agent which they had always been taught by Galen to consider as "*frigidum venenum*." But in making use of bleedings, digestives, evacuants, alexipharmics, instead of it, their cures were still not brilliant. Sebastian Brant, who in 1496 thundered out diatribes against mercury; Voets, who in 1507 called the partisans of mercurial friction assassins and murderers—were not more happy in their cures than Torella, Aquilanus, Pincto, and Montagdana. Patients, little satisfied with their doctors, rushed to the empirics; and it was only by adopting, in a more or less modified form, the medicaments of the quacks, that the doctor drew back to himself his faithless patients. Mercury was then used, under some certain degree of legislation; but it was long before its use became general, for enormities, such as the unfortunate Hutton has so eloquently described, were still committed with it; and besides, in 1519 rivals arose which kept it in check for thirty years—guaiacum and sarsaparilla.—*Gaz. Hebdom.*

—*The Right Treatment of Quacks*.—"There undoubtedly ought to be a declaratory act withdrawing expressly from the St. John Longs, and other quacks, the protection which the law is inclined to throw around the mistakes and miscarriages of the regularly educated practitioner."—*Coleridge's Table Talk*.

Chlorinated Water in Dissection Wounds.—M. Garrigou states that repeated experience has convinced him of the efficacy of the treatment long since recommended by M. Nonant, of placing the hand suffering from dissection wounds in chlorinated water. The application will be always found efficacious, providing purulent infection have not already set in, when it will be useless.—*Gaz. des Hôp.*, 1859, No. 30.

— *Oleo-calcareous Liniment in Erysipelas*.—M. Tournié, guided by the analogy which prevails between erysipelas and the slighter degree of burns, was induced to try an application, equal parts of almond oil and lime-water, which has been often found of service in the latter. This admits of being applied to any part, and to any extent, is very agreeable to the feelings of the patient, and, as far as the author has tried it, it has proved of great utility.—*L'Union Méd.*, 1858, No. 80.

— *On Serous Metrorrhœa in Pregnancy*.—M. Chassinat, in a very elaborate essay upon this subject, founded upon forty-two cases which he has collected from various authors, and ten cases not hitherto published, comes to the following conclusions: 1. The metrorrhœa of pregnant women, appearing at variable periods in the course of pregnancy, is an affection of the reality of which no doubt can be entertained. 2. In the great majority of cases, if not in all, the liquid is secreted between the internal surface of the uterus and the envelopes of the fœtus after detachment of the membranes. The differential characters suffice to distinguish it from the waters of the amnios, discharged by reason of the premature rupture of the membranes. 3. The causes which seem to favor this abnormal secretion are a general polyœmia, or local irritation of the uterus, supervening in several cases upon external violence. 4. The pathognomic symptom is the issue of a fluid from the vulva, which is usually limpid, thin and albuminous, and which may or not be accompanied by painful uterine contractions. 5. There is no anatomical lesion known which is peculiar to the disease. 6. In the great number of the cases, the metrorrhœa is dangerous to neither mother nor child, pregnancy going on to its normal term, the liquor amnii being as abundant as usual, and delivery proving neither longer nor more laborious. 7. As a general rule, no treatment is required. If general plethora prevails, bleeding may be resorted to. With rare exceptions, the pregnancy should be left to itself, and the labor allowed to terminate by the sole efforts of nature.—*Gazette Méd.*, 1858. No. 49.

Books and Pamphlets Received.

Five Essays. By John Kearsley Mitchell, M.D., &c. Edited by S. Weir Mitchell, M.D., &c. Philadelphia: J. B. Lippincott & Co., 1859.

A Treatise on Baths; including Cold, Sea, Warm, Hot, Vapor, Gas, and Mud Baths; also, on Hydropathy, and Pulmonary Inhalations, with a Description of Bathing in Ancient and Modern Times. By John Bell, M.D., &c. Second Edition. Philadelphia: Lindsay & Blakiston, 1859.—\$1.25.

Journal de la Physiologie des Hommes et des Animaux, publié sous la direction du Docteur E. Brown-Séguard. Janvier, 1859.

Archives of Medicine. Edited by Lionel S. Beale, M.B., F.R.S., &c. No. III.

Science and Success. A Valedictory Address. By Herry Jacob Bigelow, M.D.

Congenital Extrophy of the Urinary Bladder, and its complications, successfully treated by a new Plastic Operation. By Daniel Ayres, M.D., LL.D., &c. (From the Author.)

Our Infantile Mortality and the Establishment of Hospitals for Sick Children. By Wm. Moore, A.B., M.B., &c. Dublin: Fannin & Co. (From the Author.)

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